



लोकनायक जयप्रकाश नारायण जन्म शताब्दी वर्ष

पूरे राष्ट्र को गुजरात बनाने से रोकना होगा -कुमार प्रशान्त

महर्षि दयानन्द एवं आर्य समाज की उपेक्षा के कारण

सम्पूर्ण क्रान्ति का आन्दोलन विफल हुआ

सत्यव्रत सामग्री

रायपुर 12 मई। लोक नायक जयप्रकाश नारायण की शताब्दी के उपलक्ष्य में आर्य समाज आदर्श नगर पुर में सम्पूर्ण क्रान्ति एवं आर्य समाज की भूमिका विषय विचार गोष्ठी सम्पन्न हुई। इस गोष्ठी में मुख्य वक्ता

शिक्षा नीति का निर्माण होगा महगाई कम होगी भ्रष्टाचार मिटेगा सबको न्याय मिलेगा समतामूलक समाज होगा जातिवादी और अस्पृश्यता का खाल्ता होगा दहेज प्रथा खत्म होगी आदि आदि परन्तु आश्चर्य है यह सब कुछ नहीं

अक्सर तक भ्रष्टाचार के आरोप से मुक्त होने के लिए कचहर्गियों में जमानत के लिए खड़े हैं। यहेज के लिए देश की इतनी सैनियों की हत्या हो रही है जितनी एक छोटे मोटे देश की जनसंख्या होती है। साम्प्रदायिकता के पिशाच ने



क्रान्ति लोकनायक जयप्रकाश के सहयोगी एवं सुप्रसिद्ध विचारक श्री कुमार प्रशान्त गोष्ठी को सम्बोधित करते हुए एवं एकाग्रता के साथ सुनते हुए श्रोतागण इन्सानियत के खून शरदरी

एक लोक नायक जयप्रकाश नारायण थे। अन्य गी. सर्वोदय विचारक श्री कुमार प्रशान्त थे। इस गोष्ठी में अध्यक्षीय भाषण देते हुए श्री सत्यव्रत शी ने कहा कि आर्य समाज का सम्पूर्ण क्रान्ति के लिए नन गत सवा सौ वर्षों से चल रहा है। लोक नायक गण महत्त्वा गांधी और आर्य समाज के सम्पूर्ण क्रान्ति रूप में विचारों में कोई अन्तर नहीं था। काल में लोकनायक जयप्रकाश नारायण पूर्ण क्रान्ति का नारा दिया और इसकी आधी से भरतवर्ष का गगनमण्डल िल हो गया। इस तूफान में भारतवर्ष भी हुई नौका को लाकनायक जयप्रकाश और हमारा देश तानाशाही के शिकवे से बच गया। अफातकाल के बाद श के बुनावी में श्रीमती इन्दिरा गांधी मुख में तानाशाही ताकतों की शर्मनाक हुई और भारतवर्ष के करोड़ों लोग देश ल भविष्य का रूप देखने लगे। यह प्रसुत हुई कि सरकार जनता के प्रति होगी सकल क्य धो अतिम व्यक्ति भी सत्ता में भागीदारी होगी सार्वक

हुआ। अस्पृश्यता का कोढ़ दिन ब दिन बढ़ता ही जा रहा है। जातिवाद के अजगर की लपेट में सारा देश दम ताड़ रहा है महगाई बढ़ती जा रही हैं। आपातकाल से लेकर आज तक महगाई सुरसा की तरह बदन बढ़ाती जा रही है। पाखण्ड और अविश्वास निरन्तर बढ़त ही जा रहा है। भ्रष्टाचार का कोई अंत नहीं है। प्रधानमंत्री से लेकर अन्ते

से धरती को लाल कर दिया है आदमी कितना झू निर्मम हृदयहीन हो गया है और यह सब उस धरती पर घटित हुआ जहां महर्षि दयानन्द ने जन्म लिया था जहां महात्मा गांधी ने 'नम' लिया था जहां लोकनायक जयप्रकाश की सम्पूर्ण क्रान्ति का दावानल ध्वका था विहार में उत्तरप्रदेश में मध्यप्रदेश में राजस्थान में उत्तर भारत के समस्त प्रांतों में परन्तु दो तीन वर्षों में ही इस सम्पूर्ण क्रान्ति की आधी ने दम तोड़ दिया और वही पुरानी भ्रष्ट राजनीतिक ताकतों ने सत्ता पर फिर कब्जा कर लिया। हम तब से निरन्तर सम्पूर्ण क्रान्ति पर प्रतिवर्ष गोष्ठियां आयोजित करते आ रहे हैं भाषण देते आ रहे हैं। विभिन्न लगाते आ रहे हैं परन्तु बदलच कुछ नहीं आ रहा। हमारे पास आन ता है परन्तु कर्म नहीं है। अब हमें गोष्ठियों की नहीं अपितु कर्म की योजना बनानी चाहिये सम्पूर्ण क्रान्ति पर हमने बहुत भाषण सुन लिये। सम्पूर्ण क्रान्ति के लिए समर्पित गांधीवादी एवं जयप्रकाश जी के अनुयायियों एवं आर्य समाजियों में कोई अन्तर नहीं है परन्तु दोनों ही मिलजुलकर काम नहीं कर रहे। एक लक्ष्य होने के बावजूद दोनों के रास्ते अलग-अलग क्यों हैं? सामवेदी जी ने कहा कि मेरे विचार से सम्पूर्ण क्रान्ति के



सार्वभौमिक आर्य प्रतिनिधि सभा के मंत्री श्री सत्यव्रत सामग्री गोष्ठी को सम्बोधित करते हुए

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“युवा लोग ध्यान दें”

क्या नशा सुख नहीं देता? नशा चढ़ाओं गम को भुलाओं।

हिय पाठक कुद! हमने इस प्रकार के शीक को इसलिए देना खचित समझा है क्योंकि अधिकतर लोग नशा इस श्रान्ति में करते हैं कि उनको उससे सुख मिलता है। अर्थात् उनका विश्वास और युवा लोग नशा में इसलिये फसते हैं कि उनके सिगरेट पीने या होटल में बैठकर (समाजस्थित उन्हें कहनासे बालों में) शराब पीने से उनका स्तर (एजो) समाज में ऊँचा हो जायेगा। अतः वे इसी में सुख कि अनुभूति करते हैं कि हमने धनाढ्य लोगों को साथ बैठ कर नशा किया।

मैं एक इन्जीनियर होते हुए आज से लगभग 25 वर्ष पूर्व टकरा के मशीन दयानन्द सरस्वती के जीवन से प्रेरणा लेकर आर्यसमाज का सम्बन्ध स्मरण किया। और अपने कॉलेज तथा सरकारी नौकरी के समय भी कभी बीड़ी सिगरेट जहाँ सिगरेट या शराब का ही सेवन नहीं अभियुक्त चाय का भी सेवन नहीं किया। मेरा कभी मन तो न कोई सामाजिक कार्य ही रूका और न ही मैं कभी और लोगों कि तरह बिमार ही पड़ा। अभियुक्त उससे जितना घाय विरसित कि कौपीन व दैनिक आदि कि होते हैं। उसके छोड़ देने से और गाय का दूध पीने से मेरे स्वास्थ्य में अल्पभूत सुधार हुआ। आता काल शरीर उत्तम व्यायाम करने बहुरूप ध्यान करने तथा सब प्रकार के व्यसन से दूर रहने के कारण मुझे कमजोर कहलाने वाली व्यक्ति में इतनी शक्ति आज भी है कि मैंने दिना नश और अण्डा खाये व बिना किसी कि शराबती के अकेले ही गाय को बँहने वाला लोहे कि जमीन को तोस दिया। तथा पर बच के कौन का पीस आता। घर सासु भती लोहे कि छत्रों को गले के नरम स्थान पर रख कर मोह दिया। इतना ही नहीं अभियुक्त रोटी खाना पीना पीला कि धासी को बिना ठेनी के हमात्र अपनी अनुसिधो में दबाकर बीच से फाडकर यजसके दो टुकड़े कर बाँटा। यह सब व्यसन रहित जीवन का इसी चमत्कार था।

मैं इन्जीनियरिंग कॉलेज में पढते हुये भी वहीं की कैंटीन में जाकर कभी चाय नहीं पी। एक दिन आठ विद्यार्थी मिलकर गोवाई में बैठ गए। सब के सब लोहे में (मुझे छोडकर) सिगरेट पी। जो भी न पीता उसे दूसरे कहते फॉर्मोसिटी के लिए पीना। उस समय जो सिगरेट मेरे अपने हाथों को अपना जुता खोलने में था—झूठ कर व्यस्त कर रहा था। उन्होंने कहा फॉर्मोसिटी के लिये आप भी पीना मैंने कहा मैं नहीं पीता। तबके सब बोले आपको भी पीनी चाहिये? मैंने जूते को हाथ में उठाकर कहा क्या आप सब मेरा जुता फॉर्मोसिटी में अपने—अपने लिए पर चाहिये? मे नाराज हो कर बोले यह भी कोई सम्पत्ति है। तब मैंने कहा सिगरेट पीने से जानु कन डोरी है फेकडे छराय होते हैं क्या खाली व टीवी जैसे अनेक रंग लभते हैं। देखो, यदि आपको सिगरेट न तो हो हर सिगरेट कि किसी पर

पडकर देख लो। सिगरेट स्मोकिंग इज इन्फुजिस्ड फोर हेल्थ अर्थात् सिगरेट पीना स्वास्थ्य के लिए हानिकारक है। यही बात गुटके तथा शराब की बोतल पर भी लिखी रहती है। अतः यदि जुता सिर में मरवाना अच्छा नहीं जो कि केवल बाइसिटी ही होटल मारता * तो फिर अंधेर से रोग और मौत की चोट मारने वाले ये नरो क्यों अच्छे मानते हैं? उनके पास मेरी इस बात का कोई उत्तर न था। पर मझे उस दिन के परचात कभी भी चाय पीने या सिगरेट पीने के लिए उपदेश नहीं कहा।

हिय पाठकों! मैं यहाँ मुकदो! अधिकतर लोग दूसरे के करने पर निश्चिन्ता निमाने के लिये फॉर्मोसिटी की बात करने पर अपना नशा अकेले करने ता लोग सुन करहेय एकेले सोचने पर दूसरे की लोणी को नशे में फसा लेते हैं। मुझे अपने क जितने भी बीड़ी सिगरेट शराब या गुटका आदि पचाऊ खाते यादों लोग मर। तो उन्होंने मेरे यह प्रश्न पर कि आप क्यों करते को क्यों करते हैं? अथवा क्यों पीना सुख किया? एक ही उत्तर दिया कि मेरे किसी दूसरे साथी या मित्र ने यू ही एक—दो बार सिगरेट पीना दिखा कर आगे चलकर यह हमारी गदी आगत बन गय।

हिय पाठकों! सच्चा मित्र या साथी उसे नहीं कहते तो अपने साथी को पीने भोगी या भीमार बना दे। यदि आपको आस—पास कुछ ऐसे नरो या विद्यार्थी का नया काम करने वाले लोग हैं तो आप उन्हें अपना मित्र या साथी न समझकर उस जान शत्रु भी नही जरूर की तरह अपना लोहा ली समझे। यदि भारत के बच्ची बुराओ

तथा धनाढ्य लोगों को यह बात समझ न आ जाये तो भारत के लगभग नब्बे करोड़ लोग नरो से बच जायें। क्योंकि कभी भी नशा फॉर्मोसिटी या फॉर्मोसिटी जीवन नहीं बनाता अभियुक्त जलीबन को अथर्वबिश्तार uniformality पैदा करता है। यह बात भी सब जानते हैं कि जो लोग अलैम्यिक आदि खेलों में नशा करते पक्के जाते हैं उन्हें खेलों से बाहर निकाल दिया जाता है। क्योंकि नशा करके उत्तेजित होना अपरवर्ण है नरो से उत्पन्न हुई शक्ति विनाश ही करती है।

जैसे सिगरेट पीना बुरा है ठीक वैसे ही शरीर कुदना या बीड़ी पीना भी बहुत बुरा है। जो युव विद्यार्थी मध्यरात्र का नभ लेकर भोग या इच्छा पीते हैं उन्हें वह सत्तम भोगी लोगो को कहलाने में डर नहीं आनी चाहिये। क्योंकि निश्चय ही फॉर्मोसिटी के बायोलीजी संवर्धी सत्तमसमान वैदिक कर्म व प्रथम देवता सुक पुत्र कुद सत्तम जीवन हरक की

बाणी वेद के अनुसार थी। वेद में बिलकुल स्पष्ट लिखा है। कि—सुरा माषिब नोस न अनिरनयास गर्भन खानदिन अर्थात् धरती पर रहने वाले मेरे पुत्र तुल्य पारे मनुष्यों। तुम शराब कभी मत पीना भास व अण्डे कभी मत खना कोई भी नशा न करना। सदा यज्ञ की अग्नि के समान उपर उठो तेजस्वी बनो प्रभिमर्षी बनो जुझा मत खेलो और खुश खेती करे। अतः इस वैदिक शिक्षा से यही सिद्ध होता है कि शिक्षा माराज नशी नहीं करते वे अभियुक्त जीवन में सदा सुखी रहने के लिए व स्वस्थ रहने के लिए नित्य प्रणामार्थ पूर्वक अग्न के जप का योग किया करते थे।

कुद नादान लोग इसलिए सिगरेट याशराब पीते हैं कि उससे सुख मिलता है। यह उनकी बहुत बड़ी भ्रान्ति है तनिक बुद्धि लगाकर विचार करे कि क्या मनुषीबन के समय उस समस्या काहीक समाज (हलन) करक कोई बीडोश कर देने वाली या बुद्धि को खराब कर देने वाली चीज भी कभी सुख देने वाली हो सकती है? क्यापी सुख ही नशोकि ज्ञान के बिना समाजक कैसे? उदाहरण के लिए विचार कीजिए कि जो आपको घर पर चोर आ गये और आपके साथी ने आपको शराब मिलकर बहोश कर दिया।

तो क्या इससे चोर आपका घर न लूटेगा? क्या उस चोरी से होने वाली लाछा रूपयो की हानि आप को कभी सुख दे सकेगी? अतः नशा करके मुरीबत के आने पर उसे कैसे टाला जा सकता है? अथवा उससे कैसे मुकाबला किया जा सकता है? ऐसी कुशाल बुद्धि देने वाली वस्तु जैसे—बह्नी शखारली व गाय का दूध और जड़ी—बूटियो से किया गया वैदिक हवन ही बुद्धि लगाकर करके नशा देने वाला तामसिक पदार्थ तामाच।

अतः इससे ही सिद्ध होता है कि सुख का साधन नशा नहीं अभियुक्त दूध पी फल जैसा श्रेष्ठ खाने—पान और वैदिक पुरुको के उत्तरग से भी श्रेष्ठ बुद्धि। तथा योग का उप करे बोला प्रुग का योग ही है नरो तो प्रतिदिन यज्ञ का कर्म—कर्म ने तो जीवन को नष्ट ही करती है। ठीक उस चोरी की नीति चाहे यह कर्म—कर्म होनी हो चाहे प्रतिदिन कुछ लोगों को जब बस भरेल या किसी सार्वजनिक स्थान पर घुमपान करने से रोकना जैसा है तो वे झट उत्तर देते हैं—आना कुछ कहते हैं। और क्या इसे तो आज सब पीते हैं। ठीक वैसे कि डाक्टर भी पीते हैं और यहा तक कि डाक्टर भी पीते हैं। इसका बुद्धिपूर्वक उत्तर यह है कि यदि चोरी एक व्यक्ति करे तो वह चोरी और यदि मूर्खता और धन्य

के कारण सारे लोग करें भी और डाक्टर तथा मिनिस्टर भी करने लग जाए तो भी वह चोरी ही है। प्रथम यह है कि यदि चोरी यदि सब लोग मिलकर करने लगे तो क्या वह पुण्य कर्म या सत्तम बन जाता है? नहीं तो ठीक ऐसे ही किसी पाप को यदि मूर्खता और धन्य के कारण सब लोग भी और डाक्टर तथा मिनिस्टर भी करने लग जायें तो भी वह अकार्य कर्म नहीं कहला सकता। क्योंकि पाप तो सत्तमपा ही है कि अकेला करे तो पाप अनेक करे तो पाप। और करे तो पाप और बढ़ करे तो पाप। मूर्ख करे तो पाप। डाक्टर करे तो भी पाप एक बार करे तो पाप अनेक बार करे तो पाप। अतः सब के लोगों और विद्यार्थियों को दूसरे नेत्रोको व अयोग्य एवं मारयोग्य या डाक्टर वकीलो अथवा बुद्धि भट नमतोको व इन्जीनियरो हारा नरो करने पर उन्हें कभी भी अच्छा समझ कर उसका अनुसरण नहीं करना चाहिये। क्योंकि उसने अधिक पचा—लिखा होते हुये भी एक अधिकतम बनकर सारा करने की गतली की। उसे तो एक सामान्य व्यक्ति की अच्छा भी अधिक मूर्ख व दुष्ट समझना चाहिये और अधिक दण्ड देना चाहिये। समझदार लोग कुछ तामाकियत आत्मिको की लोणी खोलें जो भी एवमन बहोश कर दें। क्योंकि इनकी भी कोई सदा विवर देने वाली बुद्धि नहीं है कभी कहते हैं सेहत के लिये अण्डे भास और फ्रिजिफ्रैड टेल और कभी कहते हैं अण्ड भास फ्रिजिफ्रैड तेल व शराब दिस की बिमारी का सबसे बड़ा कारण है। अतः गाय का दूध पी व दही खाये गाय का दूध पीये और ओम का जप करते सदा हवन करे व स्वस्थ सुख तथा सुखी रहें।

सच्चा सुख का साधन वही है हेजो कि शरीर को स्वस्थ बुद्धि को कुशाल मन को प्रसन्न जीवन को स्वतन्त्र तथा आत्मा को तनाव मुक्त करके सदा आनन्दित करता है। पर नशा अपने में ऐसा कोई गुण नहीं रखता। इसने दो मत नहीं दिये। प्रथम में कुछ दुष्ट दोष सा दिखाई देता है। पर यह हाणिक सुख है जैसे कुला जप या मासहिरा हडकी को बढाता है तो उसके अपने ही मनुको का मनु निकलकर उसे कुछ सुख देने लगता है। यदि उस हडकी के बढाते समय कोई सत्तम व्यक्ति अजानक उसके समीप से निकल जाए तो वह अपनी हडकी के निज जाने के घब से घब करके चिल्ला करे लिये नीकता व दौडला। पर वही कुला कुछ काल के परचात जब उस हडकी को छोडता है तो तब अपने घावत हुए मनुको के दर्द के कारण जल—जल से घिसलाने लगता है और कई दिनों तक पीडित रहता है।

ठीक ऐसा ही हाणिक सुख नरो को भोगने करते व्यक्ति को भी उसके प्रथम में मिलता है। पर जब उसे लोच आ कर घरेले है इ न समाज हो जाता है सर्वत्र लोग उसकी निन्दा करते हैं तो तब वह नरो को छोडने का विचार करते हैं पर नको पूर्ण लाभ नहीं होता। क्योंकि नरो की आगत इतनी गहरी हो जाती है कि देर के पचात छोडने के विचार को उन्हें पूर्ण लाभ नहीं होता। क्योंकि नरो का अच्छाकर इतना पक्का हो जाता है कि वह छोडना चाहता है पर छोड नहीं पाता। कारण यह है कि सनी नरो मन को इतना कमजोर व बिमार कर देते हैं कि करने बाल के भीतर उसे छोडने की या निर्भर करने की शक्ति ही समाप्त हो जाती है। अतः उसे उसी कुलो के समान हाणिक सुख के परचात कि सम्पूर्ण जीवन पर लोग पीडको तनावकुल जीवन खलतला मत मानक नरो की मनुषी लोपो का अपमान और आत्मा की फटकार का ही दुःख अंजता पडता है।

तो अन्त में हम नशा करने वालों को यह बता देना चाहते हैं कि नरो धन का चरित्र का इच्छा का व सेहत का नाश करते हैं और व्यक्ति के शरीर को व शरावमय को मानक करके उसे प्रुग के तबले सुख से दूर ले जाकर भयकर दुःख व एडस जैसी भीमारीयों में डुबोते हैं। जबकि अधिकतम व एडिडिटी सुख अण्ड भास शराब जुआ व्यक्ति का सेवन न करने वाला व यू ही चाय कफी न पीने वाला तथा नशीले तत्व (एकोहल इट्रटमन) और पयुषो से प्राप्त विरसित जैसे जहरीले पदार्थों से बने) कोका लिन्का व पेसी आदि न पीने वाला सदीत तथा बुद्धिमान व्यक्ति सदा लोच आये पाकर जुकी एवम स्वस्थ रहता है।

इन उपरोक्त मन्दे पदार्थों से रक्षित उसका नशा मुक्त पवन प्रु मिन्दर रूपी मान शरीर रक्षीय सेवा के पात एव प्रु के आनन्द को प्राप कर के अपना जीवन सत्तम कर लेता है।

ओज सनी पडे—लिखे और समझदार लोग यह जानते हैं कि विश्व स्वास्थ्य (WHO) तथा अमेरिकन वैज्ञानिको को ब्रायन तथा डाग गोल्ड स्टीन तथा अमरीका के द अर्थ आईडियल जर्नल के शोधकर्ता को के अनुसारता—प्रुप्रान—शराब—भास—अण्डे और सनी कोका शराब—कुलु बम ग्रास बना देते हैं। क्योंकि कोई भी नशा स्थाई रूप से शरीर या स्कुल नहीं देता। अतः सदा सपरोका नरो से बचे।

—आचार्य आर्यनरेष वैदिक गवेषक वसुधायी सामान्य सत्यो सिद्धान्त ओहर (राजस्थान)सिन्धीयर

—173101

चिट्ठी आई है

श्री तत्त्वज्ञान सामवेदी जी

नमस्त!

मैं इस विषय का सबस छटा वद प्रकाश करे। मैं निम्न स्थाना पर नमस छोटे स्तर का वेद प्रचार किया है। कृपया इस अपनी पत्रिका में छापन का कष्ट करे ताकि अन्य भी इस प्रकार अपने सामर्थ्यानुसार इस पुनीत कार्य में कूद सक और वातावरण बदलय बनन लगे।

निम्न स्थाना के स्कूली भू-बैठका में सितार्थ सन्तरा में लार्डबर्ग ने 'शिक्षण शिबिरा में गायत्री मंत्र स्वामी दयानन्द सरस्वती जीवन चरित्र ओओ में मास स हनिया का पैपलेटस शायब व तन्वाशू की हानिया के पर्व वैदिक मान्यताओं शिद्धान्ता के दृष्ट आर्य समाज की पुरानी पत्रिकाए नारी विकास की पत्रिकाए सलता बाटी है-

इन के स्कूला में स्टाफ की भीटिंग (30-40 मिनट तक) लेकर उनका नैतिक शिक्षा केंद्रोंकेस प्रकार? क्या दी जाय? 7 आदि आदि बाता का प्रशिक्षण दिया है-इन की सवा में सदाचार की प्रस्ताव की पट की है।

कई जगहा के आर्य समाज क जलसों में परारा बन्दी व शाकाहारी की प्रदर्शनी भी लगाई है जिनका ताप हजारों लोग ने उठाया है।

स्थान-नाहरी सानीपत शारक पानीपत मुक्तगल पलवाल गाहानर हिसार बहाुरगढ राजस्थान में सीकर उप मेरठ।

होरवार सिध सत्यविद्य विशासक आर्य सेवा (जानमृति) अभियान केन्द्र नाहरी (सानीपत) हरियाणा-131103

क्या आर्य ध्यान से पढ़ोगे ?

1 यदि आपको जप भी शाय व राष्ट्र स प्रेम है तो अपने देश में राष्ट्र भाषा हिन्दी का प्रयोग कर। जैसे हिन्दी में इस्तेमाल करे अंग्रेजी में सिगनचर न कर। निमग्न पत्र इत्यादि हिन्दी में छपवाये। अंग्रेजी सीखने या पढ़ने का मतलब यह नहीं है कि हम अपनी मातृ भाषा का भूलकर उसकी उपेक्षा करें।

2 आजकल लखविकी शर्म की सीमा का पार कर रही है। अंग प्रदर्शन इनका फैशन बनता जा रहा है। इनका ध्यान का यह अर्थ नहीं है कि उनको मिसल या मिसल मिसल बनाया जाय। उर्दू में निम्न पत्रिका बरती है- तालीम त्क़िमी की बरती है मेरठ, वो आदम खाना हो हिंदी ठाका भी पूरी व हो।

अर्थात् शिक्षा प्रचार करके उन्हें अच्छी पहचान बनना बहुत आवश्यक है। 3 आर्य समाज में एक तरह चल पड़े है। नमस्त जी का भूलकर नमस्कार जी करते हैं। नमस्त और नमस्कार व जो अंतर है उस समझने पर भी समझने की कोशिश नहीं करते। उचित यह है जब भी मिलो तुम कभी किसी से कभी नमस्त जी नमस्ते जी।

4 कुछ अधिकारी आर्य समाज में स्वामी विक्रान्त नु को ध्यान का प्रयास कर रह है। पर दीप आला का इमो बख्क हाथ है। स्वामी दयानन्द और विक्रान्त नु को वो विरोधी अन्तर है उस समझन की कच्चा क्या नहीं करते? इनसे सतर्क रहने की आवश्यकता है।

5 आर्य समाज को कल चल टन बात नकली फर्नी सदस्य मत बनो। सच्च सचचारी और असली समजगी बना। अपनी बुद्धि का प्रत्यय का जानकर धर्मवचन करो। आज हम देखते है कि आर्य समाज कवन सख हवन करके अपने कसब की इतिश्री सखता है जबकि इतिहास बताता है कि आर्य समाज बुद्ध्या कुश्याओ के विरुद्ध एक आंदोलन है। अत इसका ईमानदारी स संकेत बनाश। याद रखो! कृपन्ता विवेकायम से पूर्व कृपन्तो स्वय आर्यम करना होगा। कल जय घेन लगान स काम नहीं चलगा।

आर्य समाजों में क्या हो रहा है ?

मैं प्राय आर्य समाज में बिना बुलाये भी जाता रहता हूँ उनक सत्संग में बैठकर सुनकर आ जाता हूँ। वहाँ काई नहीं पूछता कि आप कहीं से आया हा कहीं क्या हा रहा है यह सब जानकर बख्क रहता हूँ। अनेक आर्य समाजो में मन उपार्जन के निम्न शिक्षित अनुभवी कार्यो हा रह है जिन्हें तत्काल बन्द करना चाहिये।

1 आर्य समाज के भवन बाह्य पर बन हुए है भारत में शरबी कम्पनी स तरह के लाग आत है जो गलत काम करते है। शराब की काका लात पत्नी की छाती बाताम मित्ती है।

2 आर्य समाज के भवना में सख शिक्षा के इनामिता भीडियन स्कूल चल रहे है। स्वामी दयानन्द के मिशन पर कुठाराघात कर रह है। सकुत्त पाठशाला को भी खोलते।

3 पर स मागे हुये धरिहरिजन लडक-लडकिया के अफ्रि विवाह कराव जात है।

4 इनके अतिरिक्त वैदिक सिद्धान्त के विरुद्ध अनेक पाराधिक क्रियाए होती है जैसे गण्डा पूजन कित्रा पर भूल-मलत्ताये इत्यादि।

5 आर्य समाज के कई अधिकारी लखे पश्चिमी सभ्यता का अनुसरण करत हुए स्टूडेंट-स्टूडेंट टाई अंगारक अंग्रेजी का अस्वाभ लेकर आर्य समाज के सत्संग में आत है। इनके बीबी बच्चे इनक विरुद्ध कहीं और पूजा स्थला में जात है। मुझ बख्क अपमान है कि आर्य समाज के जा प्रधान या मंत्री अपने बच्चे को आर्य नहीं बना सकत। वह दूसरों को क्या बनायेगा। इनका कस्य हजारों लाखा बटलन की आर रहता है। ऐसे भौतिकवादी अधिकांशिया स आर्य समाज का बचाव। हमा कराना किसी के प्रति मुझ काई ईंधा देन नहीं है। मैं ता समाज क हित में सुधार की बात लिख रहा हूँ। माना न माना खुशी आपकी हम मुसफिर है कहकर चल जायेंगे।

दवराज आर्य मित्र

श्री महर्षि दयानन्द सरस्वती

स्मारक ट्रस्ट टंकारा

आर्य समाज अंगारकली मंदिर मार्ग नई दिल्ली-110001

श्री धर्मवीर श्रद्धा को शोक

आपको सुचित करते हुए अत्यन्त दुःख हा रहा है कि टंकारा ट्रस्ट के माननीय ट्रस्टरी श्री धर्मवीर श्रद्धा प्रधान आर्य समाज जामनगर सौराष्ट्र गुजरात-361005 दूरभाष-0288-750796 क युवा दामाद का सर्वांग सहा गया है। व मुम्बई में रहत व आर उनका अत्यन्त सकार वैदिक रीति स सम्पन्न हुआ।

मैं अपनी आर स एव श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टंकारा की आर से सवेदना प्रकट करत हुए प्रणामा स प्रार्थना है कि दिवंगत आत्मा का शान्ति एव सदैवगति प्राप हा और उनक परिवार का एव श्री रत्ना जी क परिवार का वह अपार दुःग सदन करन की शक्ति प्रात हा।

ऋषि की आवाज सुनो!

जवघोष बोलने से पहले, ऋषि की आवाज सुनो। ऋषि ने जो संदेश दिया है, उस पर जरा विचार करो।

बच्चा पैदा होते ही, अंग्रेजी भाषा सीख रहा है।

हिन्दी की गिनती नहीं आती, जब, दु धी बोल रहा है।

यज्ञोपवीत का नाम न जाने, ककटई को धार रहा है।

नमस्ते करना भूल गया है, बाय-बा-बा हिला रहा है।

विदेशी भाषा से पहले, मातृ भाषा का ज्ञान का करो।

जवघोष बोलने से पहले, ऋषि की आवाज सुनो।

बिस कॉलेज में लड़का पढता है उठती में पढती है लड़की।

आकर्षण पैदा करने में जैशन को है बू भड़की।

फिल्मी जाने गा-गा करके प्रेम की पीग बढ़ाते हैं।

जब नहीं युवाई होती है तब लय लेटर भिजवाते हैं।

दुष्परिणामों से बचने को, सहशिक्षा को बन्द करो।

जवघोष बोलने से पहले, ऋषि की आवाज सुनो।

लड़की पैदा होने पर घर में मातम सा छ जाता है।

लड़का यदि जन्म ले तो घर सुखिया से भर जाता है।

लड़की का पालन पोषण भी लापरवाही से होता है।

लड़का शीघ्र जवा हो जाये, ध्याल विशेष दिया जाता है।

लड़की को लड़का समझो, नारी का मत अपमान करो।

जवघोष बोलने से पहले, ऋषि की आवाज सुनो।

से देवराज आर्य मित्र

आर्य समाज कुलनागर दिल्ली-51

आर्य समाज

महर्षि दयानन्द मार्ग भरियानी चौहट्टा उदयपुर-1

आर्य समाज के सदा बहार दीवाने 'लालचन्द कालरा नहीं रहे'

उदयपुर 28 अप्रैल। आर्य समाज उदयपुर क उप प्रधान एव सचिव समाजिक कार्यता लाल चन्द कालरा का दिनांक 28 अप्रैल 2002 को सांझकाल 6 बजे हृदय गति रुक जाने के अपाक दहरा हो गया जिससे समूची श्रीला की नगरी क आर्य समाज में शोक की लहर छा गई। स्व लालचन्द कालरा सदैव इसमुख रहने वाले सत्संगधार व्यक्तित्व व जिनकी रग-रग में महर्षि दयानन्द का मिशन समाया हुआ था। वे समाज क ऐसे दीवाने थे जो जिस काम में लग जाते थे उसे करके ही छाड़त थे। मरा उनस पहली बार 1988 में स्वामी अग्निशेष के नेतृत्वा हरिजन प्रस्था आन्दोलन में परिचय हुआ था।

य प्राय समाज 3-4 घंटा का प्रतिदिन सभ्य देवक निर्माण काया में व्यस्त रहत था। समाज क एस उज्ज्वलन साथी का असाधारिक निधन समाज के लिए एक भारी क्षति है जिसे कभी पूरी भी नहीं की जा सकती है। वित्त 5 मई का समाज क समागार व सभी समाज के सदस्य ने रा निवेद का मौन रख श्रद्धांजलि अर्पित की। साथ ही दीवंगत आत्मा की शान्ति के लिए ईश्वर से प्रार्थना की।

—आर्य समाज

संदेश

जग गय है जुलम और ईमान से ख है।
देख की स्थिति पर इन्सान से ख है।
उड़ारी ज रही है संस्कृति की खिल्ली।
परखण्डियों का पुनः सत्कार ले ख है॥

प्रेता जयता नर इन्द्रो वः शर्म यच्छु।

उम्राः वः सन्तु वाहोऽनाथृष्यां यथासथ॥

हे साधना शील मनुष्यो उठो बबो और विजय प्राप्त करो, परमेश्वर तुम्हें सुख दे, आश्रय दे, तुम्हारी शत्रुओं को विलोडित करने वाली शक्तिया उप्र हो। जिससे कि तुम काम, क्रोध, लोभ आदि द्वारा न दबाये जा सकने योग्य हो जाओ।

—आर्य वीर दत्त जोषनर आर्यसभा,
जांसीवाली का बास जोषनर

मगर आतंकवादी डर और भय से जोर जबरदस्ती करके अपनी बात का मनवाना जैसा जम्मू कश्मीर में

अभिचार का मत आदेश की
अवधान पर तेजस और कर खरा
बिगाड़ने का डर पैदा करना सत्रियोंको
का किसी मंद टेतर से कपड़े
सिलवना या क्रम-विकार पर प्रतिक्रिया
। लगना किसी भी प्रकार से
सम्बन्धित नहीं है । मुख्यतः
फारुख अब्दुल्ला ने सपा-साफ़ न
हाइली ज़ुतुनिया का वर्णन उठाया
पदवरो महाभाग में जाकर करने
का आदेश दिया है जो सत्तरों
उचित है इन्हें इफ्तियाँ जो सासस
बलावान् । म हो र ने सहर क
वस्त दिखाया वह और मुँह पिय ने
उस की मानसिका का लोहा नगा है
होई नानसिमा के ताँता ताँता का
आज पुन दिखान है सनम वस्त
अमरिका और अन्य ॥ग की पुरा
लगान की जरूरत नहीं है । हार
आज साँध है । हार
मुलतमम सिख सई हई दुदी
मौली बँद जेन सैनी आप पर
परमा का कहें । मुँजी ने दासल
राजनासतीन ब बकावा में बा आस
म आने की जरूरत नहीं है ।
युग युग एक आपका नाम हो जाय
एक व्यवस्था का नाम जायैव ।
एक पूरु क मने की बगवो
एक बार होर ही तख जीना होना ।
ईश्वर आपका कल्याण करे ।
मेरा प्रार्थना होता है ।
आम शान शानि शांति ।
बीरवत आर्य
गीतव स्योर्टस नाम्पु रोड
मिथवा म प्र

युवा शक्ति को ख़ुला आमन्त्रण

आर्यवीर दल राजस्थान का छत्र व छात्राओं के लिए प्रान्त स्तरीय चरित्र निर्माण एवं व्यायाम प्रशिक्षण शिविर

दिनांक 4 जून से 10 जून 2002 तक केवल छात्राओं के लिए

स्थान - ऋषि उद्यान, पुष्कर रोड, अजमेर

मान्यवर

अधिक व्याख्यान विना गांधी भाषण गीत वाद विवाद आदि प्रसिद्धान्तियां एवं आर्थिक एवं धार्मिक बल बढाएँ तथा श्रम प्रयत्न स्वस्थाय अथवा प्रचल प्रचर व्यवस्था की प्रवृत्ति व्यक्त की।
 अपील इन दल निष्ठियों के प्रबन्ध भाजन आदि पर काफी खर्च हो सका जिसकी पूर्ति आप और हम सबका मिलकर करनी है। हैतु आप सभी दानी तज्जना सहायता आर्य समाजो विस्थाकर सङ्घर्ष आप समाजो से निवर्तन है कि कुत्रोको क चरित्र निष्ठाण न अपना दल बन चकर पुथ्य क भागी बन और हमारा उद्घाटनकार्य न करे। आप प्रपनी सहायता राशि नन्दक/क/अग्र/धन्यादा आदि हारा परावर्षाणीसी समा ज्ञानेर अथवा आर्य दल राजस्थान गगानुसिदी के नाम स ऋषि दाना पुष्कर रोड अजमेर के पते पर भेज सकता है तथा शिविर आपरी हेतु दल इसका उत्तेल्ले अवसर करे। शिविर हेतु गीत दाल चालव आलोन सामग्री मानी आप भेज सकते हैं।

प्रशिक्षण — शिविर में शारीरिक उन्नति हेतु आसन प्राणायाम दण्ड बैठक जूझो-कराटे आदि विविध व्यायामों का प्रशिक्षण दिया जावेगा। मानसिक व चारित्रिक विकास के लिए

सम्पर्क सूत्र शिविर सचालक/सयोजक ऋषि उद्यान पुष्कर रोड अजमेर फोन-0145-431331 व 621891

निवेदक

यतीन्द्र शास्त्री
शिविर संयोजक

584 चेतन निवार
जवाहर कॉलोनी सरदार नम

(पृष्ठ 2 का शेष)

ज्ञानलवदुर्दिग्ध
ब्रह्माप्तिं त नर न रजयति'
सुश्री सूर्या देवी आचार्या
पाणिनी कन्या महाविद्यालय
वाराणसी-10

त्रुट्याभास का पिटारा है जिसे
आर्य-जगत् मली-नीति जान रहा
है। नान्य वेदवागीश जी की ओ०

तन मन धन से सहयोग दे
पाठकगण 100 रु सहयोग
राशि भेजने का कष्ट करे।

॥ अरेतु ॥
धर्मबन्धु विश्वनाथन्

Chaitanya Karer Vaidya
BARDWAN



वर्ष 2 अंक 38 8 जुलाई 2002 मूल्य एक प्रति 3 रुपये डाक पंजियन संख्या RJ 2837/2001 वार्षिक मूल्य 75 रुपये

गुजरात में आयोजित आर्य वीर दल के शिविरो में भारत के भावी राष्ट्रपति डॉ. कलाम का भाषण आर्यवीरो! रात-दिन जागो मधुर सपने लिये

डॉ. कलाम

आर्य जगत के युवा सन्यासी स्वामी धर्मबन्धु जी द्वारा गुजरात में आर्यवीर एव आर्यवीरागना दल के दो शिविर आयोजित किए गए। पहला शिविर जिला राजकोट ता उपलेटा स्थल प्रासला में 10 फरवरी से 17 फरवरी तक आयोजित किया गया जिसमें 5 हजार आर्यवीरो ने भाग लिया और दूसरा आर्यवीरागना शिविर जिला अमरेली में स्थल बवापुर में 19 मई से 26 मई तक आयोजित किया गया जिसमें 1500 छात्राओं ने भाग लिया। इन दोनों शिविरो को भावी राष्ट्रपति डॉ. अब्दुल कलाम ने सम्बोधित किया। डॉ. कलाम स्वामी धर्मबन्धु के त्याग बलिदान के बहुत प्रशंसक हैं। जब राष्ट्रपति पद के लिये डॉ. कलाम के नाम की घोषणा हुई तब उन्होंने स्वामी धर्मबन्धु जी को फोन किया और कहा कि आपकी शुभकामनाओं से मेरा नाम राष्ट्रपति पद के लिए प्रस्तावित हुआ है। इन दो शिविरो में डॉ. कलाम का सम्बोधन प्रस्तुत है।

आर्य समाज के प्रवर्तक महर्षि दयानन्द सरस्वती भी स्वयंभूत थे। असम्भव को सम्भव बनाने का स्वप्न। क्या स्वप्न के बिना मानवतावाद का पथचम फहराया जा सकता

भारतवासी कहते थे ये स्वप्नदर्शी कितने मूर्ख हैं। जब 1857 की क्रांति विफल हो गई सैनिक विद्रोह विफल हो गया तब ये मुद्रांगम आर्य समाजी देश को आजाद कैसे कर सकते हैं?

सर्वत्र गुप्त सहयोग मिला।

अग्निमीलें पुरोहित

आर्यव का प्रथम मंत्र अग्निमीलें पुरोहित यज्ञस्य देवमृष्यमिव।
होतार रुक्मातमम्। सर्वं प्रथम विश्व के गगन मण्डल में गुजित



बावापुर की शिविर में उपस्थित लड़कियों



आर्य वीरागना शिविर में डॉ. सम्बोधित करते हुए

भा? क्या प्रगट इन्सानियता के स्तूप से लम्ब-पक्ष अन्धी गलियों में भटकना छोड़कर मानवता के पथ का पथिक बनेगा? क्या-क्यातारों की दुनियाँ को कसत कर देकराओं की सृष्टि बनाये का स्वप्न? हजारों साल से पदचिह्न नापसुखित को समज के सर्वोच्च आसन पर बैठाने का स्वप्न। विश्व में करुणा दख ग्रेम स्नेह लसेबन्ध, सद्गुणमुद्रि, सद्भावता की मयकिनी प्रवाहित करने का स्वप्न। वेद को हजारों साल की गुलाबी से मुक्त करने का स्वप्न। जलविषय के कैन्सर से भारत को मुक्त करने का स्वप्न। विश्व बहुमुख का स्वप्न। हजारों वर्षों से अन्याय और अत्याचार की पकड़ी में बिसते हुए परगलियों को मुक्त करने का स्वप्न। प्रत्येक नर-नारी को सर्व सर्व काम मोक्ष प्रदान करने का स्वप्न। पावण्ड एव अविश्वस्त को जला कर राख करने का स्वप्न। अभाव और दरिद्रता को समाप्त कर इन्सानियता की जियगी जीने का स्वप्न। दुखी मानवता के ओढ़ पीठकर उनके अक्षरों पर मुस्कान उज्जित करने का स्वप्न। पशुओं की खलि देने वाले खूनी दलियों से निरर्थक मुक्त पशुओं को मुक्त करने का स्वप्न। पणत स्वप्नदर्शी कार्यवीरो पर हकती बी। जब कोई आर्यवीर देश की आजादी के लिये फाँसी पर चढ़ जाता या तब

आर्यवीरों का एक ही काग था-स्वप्न ही स्वप्न स्वप्न ही स्वप्न।

यदि पंडित सप्तसाद विमलत भोरे पणत लाजा लाजपत राय कहीदे आजम भगतसिंह अमर हुतात्मा स्वामी भद्रानन्द स्वामी जी बुद्ध वर्मा राजगुरु सुजदेव अस्फाक उल्ला खों आदि हजारों आर्य वीरों ने देश की आजादी का स्वप्न नहीं लिखा होता और इनमें से अनेक आर्य वीर देश की आजादी के लिये फाँसी के तख पर नहीं चढ़े होते तो क्या देश आजाद हो सकता था?

डॉ. कलाम ने कहा कि महर्षि दयानन्द एव उनके वीर अनुयायियों ने केवल स्वप्न ही नहीं देखा। उसे विचारों में परिवर्तित किया और क्यार्थ में साकार किया।

स्वप्नों के कारण ही मिसाइल बनी

कसत का फलत मिसाइल भी हैं स्वप्नों के कारण ही बना सख। कसत सखकर ने पाप मिसाइलों विकसित करने की जियवर्द्धि दी। कन के अन्ध में मिसाइलों का निर्माण कैसे हो? इस कर्ष के लिये मैंने दो दर्जन प्रयोगशालाओं, दस सैकड़ि सक्कन्, शत शिपों लेबोरेटरी तथा 42 कम्पनियों की मदद ली।

हुआ था। अग्नि की उपासना करो उसका स्तुतिगान करो जो तुम्हारा पुरोहित है। जो पुर का नमर का राष्ट्र का हित करे वही पुरोहित है। जो अग्नि प्रज्वलित करता है वही पुरोहित है। पश्चिम के अवैदिक लोगों ने हमारी मजाक उड़ाई कि ये अग्नि पूजक हैं। ये मूर्ख हैं निष्कार हैं अज्ञानी हैं। अग्नि को ईश्वर मानते हैं। महर्षि दयानन्द ने पारम्पर्य दार्शनिकों को चुनौती देते हुए कहा कि तुम मूर्ख और अज्ञानी हो। अग्नि की पूजा का अर्थ है सृष्टि के विकास में अग्नि का प्रयोग। सारा ब्रह्मण्ड जगत अग्नि पर अवलम्बित है। हम भी अग्नि के कारण ही जीवित हैं। जिस दिन हमारे शरीर से अग्नि समाप्त उस दिन राम-नाम-सत। अग्नि ही जीवन है अग्नि कृप्य होना ही मृत्यु है। महर्षि दयानन्द ने हमें ईश्वर भक्ति सिखाई। अग्निज्योति ज्योतिरग्नि स्वाहा।

प्रकाश स्वप्न अग्नि के लिये हैं वह यहीव द्रव्य की आहुति देता हैं। जिस समाज में अज्ञानी है वह कैसे उठ सकता है? महर्षि दयानन्द ने भी आग बांधें तपक प्रज्वलित की। आर्य समाजी प्रतिदिन अग्नि की उपासना करते हुए ईश से मार्गना करते हैं- उदयकाशस्वप्ने प्रतिजगृहि
मै अग्नि त प्रज्वलित हो इध्यस्व- प्रदीप्त हो

वर्त्तन-इह दह-प्रकाशित हो तेजसी हो यह अग्नि हमें प्रजा पशु, वन, वायु, तेज यात और भीम सम्पन्न्य से बढ़ता है। हम मन्त्रात ही करते हैं। वास्तव में हैं। कलाम में अग्नि की स्तुति की। अनपराध परिसम के बाद एक दिन वह भी आया जब उन्होंने अग्नि मिसाइल बना लिया।

नर हो न निराश करो मन को-

अग्नि मिसाइल के प्रथम परीक्षण के दिनों में कलाम अपने साक्षियों सहित लक्ष्मिण पेड पर पहुँच गए पशु पशु पहला परीक्षण असफल रहा। सभी सभी निराशा में डूबे हुए। अपने निरुत्त साक्षी भी अग्रवाल एवं श्री स्मन के कंधे पर हाथ रखते हुए कहा कि-सफलता की तरफ



बाबापुर में आयोजित आर्य वीरगंगा शिविर में डॉ. कलाम और स्वामी धर्मबन्धु जी

असफलता भी हमें स्वीकार करनी चाहिए। हमारे प्रयोग में जबरन कही खात्री रह गयी है। हम उसे बुरे कर्मों और प्रजात करे। जब दूसरे बार भी परीक्षण असफल रहा तो डॉ. कलाम ने कहा-येई बात नहीं हम अभी लक्ष्मिण पेड तक पहुँच गए हैं। बस हमें इससे आगे बढ़ना है। यह प्रेरणादायक शब्द सुन कर डॉ. कलाम और उनके साथी फिर अग्नि पूजा करने लग-अग्निज्योतिर्ज्योतिर्गन्त स्यात्। जब तीसरे बार अग्नि मिसाइल का परीक्षण सफल हुआ तो डॉ. कलाम के साथी खुशी से गाने लगे और डॉ. कलाम को कंधे पर उठा लिया। दुनियाँ को आश्चर्य हुआ कि स्वदेशी सलानों से अग्नि मिसाइल कैसे तैयार की गई। इसकी रेंज अनुसूत्रा लेकर 1400 कि.मी. से 4000 कि.मी. तक की है। सच विश्व अग्नि मिसाइल के सफल परीक्षण का समचार सुनकर रतन रह गया।

न आधी रोक सकती है

न तूफान रोक सकते हैं।

डॉ. कलाम ने शिविर में आए हुए विद्यार्थियों से कहा कि आगे बढ़ने वाले को दुनिया की कोई ताकत नहीं रोक सकती। कोई भी व्ययधान सकलव्यापन ध्यति की प्रगति को अवरोध नहीं कर सकता। डॉ. बर्मा के भीष में अपने सपन में जो गए। उन्होंने शिविर में आए बच्चों को बताया कि मेरा जन्म हिन्दुओं की धार्मिक नगरी रामेश्वरम् में एक मत्स्यद गली में हुआ था। सब जाति के लोग बहुत धन प्रदक रहते थे। मेरा परिवार बड़ा निर्धन था जो मुझ से तीन हाथ आदि बीम कर अपना पालन-पोषण करता था। मेरे पिता जी ने पान की दुकान खोली। इससे परिवार की आर्थिक स्थिति कुछ सुधरी। महात्मा गांधी के नेतृत्व में जब आजादी का आन्दोलन जोर पकड़ने लगा तो लोगों ने समाचार पत्र पढ़ने की रुचि बढ़ने लगी। अतः मेरे दादाजी ने अब्बावार बेचने का धवा शुरू कर दिया। इसी परिवार में 14 अक्टूबर 1931 को मेरा जन्म हुआ। मुझे बड़े-बड़े बताते हैं कि तुम्हारे जन्म पर तुम्हारे घर पर खुशी का कोई अलत नहीं था। मेरे दादा ने मेरा नाम अब्दुल रखा। पर मुझे वे बहुत प्यार से अब्दु कहकर पुकारते थे। मुझे दादाजी ने बताया कि तुम्हारे जन्म के समय पक्षीस ने रहने वाले ब्राह्मण लम्पणशास्त्री टोपी और श्रवला लेकर आए थे। उनका पुत्र रामनवा शास्त्री मेरा अन्तरा मित्र था।

आपको राकेट से लगाव कब हुआ?

शिविरों में आए बच्चों ने डॉ. कलाम से पूछा कि आपको सर्वप्रथम राकेट का ज्ञान कब हुआ और राकेट बनाने की वदयत कलामा क्या जागृत हुई? डॉ. कलाम ने इससे हुए उत्तर दिया कि- एक बार मैं रामनवा शास्त्री के साथ मदिर में रामलली देखने गया। वहाँ मैंने देसी राकेट देखे। वहाँ से मुझे राकेट के प्रति लगाव उत्पन्न हुआ और हम दोनों सानुद्र के किनारे कागज के राकेट बनाकर उड़ाते रहते थे।

जब हम 6 वर्ष के हुए तो हम दोनों को एक ही स्कूल में प्रथम कक्षा में प्रवेश दिला दिया। मेरे समय में रामेश्वरम् में पारसी कक्षा के बाद कोई स्कूल नहीं था। मेरे पिता चाहते थे कि मैं कम से कम दसवी तक तो शिक्षा प्राप्त कर लूँ। मेरे पिता के मित्र रामनाथानी के पिता का भी आग्रह था कि अब्दुल को दसवी तक पढ़ाया जाय। फिर मुझे रामनाथपुरम के मिगनेरी स्कूल में दाखिला दिला दिया। मैं रोज दो घंटे पैदल चल कर उस स्कूल में जाता। दो घंटे जाने में और दो घंटे आने में। स्कूल से आने के बाद पान की दुकान पर मदिर की सहायता करता। दसवी पास करने बाद मेरे मिताजी ने कहा कि तुम बहुत पढ़ गये हो अतः अब तुम मास्टर हो जाओ। परन्तु इस बार भी रामनाथानी के पिता जी ने मेरे मिताजी को सलाह दी कि अभी से इसे नीचरी में डाल कर इसका संनाना मत करो। इसे भी ए तक पढ़ने दो। यदि तुम्हारे पास पैसा नहीं है तो मैं मदिर कम्पनी आई इसका प्याई का सारा खर्च मैं उठाऊंगा। मेरे दादाजी को दसवी तक पढ़ाया कि मैं अपने प्याई आई स्कूल गया। मैंने त्रिगणपत्ती में सेंट जोसफ कॉलेज में प्रवेश ले लिया। एक दिन मैंने पेपर में सफल पढ़ा जिसका शीर्षक था सिस्टमग्राफ। यह दुनिया का प्रथम राकेट था। मित्रों के वाक्य सुनिये मैं यह राकेट आज भी रखा हुआ है। इस लेख में यह प्रश्न मेरे आश्चर्य का ठिकाना नहीं रहा कि दुनिया का पहला राकेट भारत में ही तुलु जलाना द्वारा

इस्टाब्लिश कम्पनी के सचिव मुद्र में इस राकेट का इलेमसत किया था। इसी राकेट से प्रेरण लेकर द्वितीय विश्व युद्ध में राकेट बनाने गए थे। इस पेपर को पढ़ने के बाद मेरे मस्तिष्क में राकेट बनाने की बुन सवार हुई और मैंने फकतम और फकतमता आदि प्राचीन ग्रन्थों का अध्ययन किया। इन ग्रन्थों से मैं इस निर्माण पर प्रेरणा कि आनुमिक कला में अस्त्र-शास्त्र को देखकर इन आश्चर्य चकित होते हैं और एरिसन के विमानों की विस्तार की साद देते हैं। वे अस्त्र-शास्त्र प्राचीन भारत में थे और इनका आविष्कार सलानों एवं पूर्व भारतीय अनुसन्धानकर्त्ताओं ने किया था।

ऐसा लग रहा था डॉ. कलाम- महर्षि दयानन्द के उपदेश की पुष्टि कर रहे हैं। शिविर के सयोजक युवा सन्यासी धर्मबन्धु जी ने इस सम्बन्ध में महर्षि दयानन्द के विचारों को ब्यक्त करते हुए



प्रसस्ता के शिविर में जाते हुए डॉ. कलाम एवं श्री खैरानर

कहा-जिस युग में सम्पूर्ण भारत अर्यों से पदातन हो चुका था पारवात देवी की विजय फलकर, एशिया और अफ्रीका महाद्वीपों के प्राय सभी देशों में बहता रही थी। भारत का सुविश्वित बुर अर्यों शासन को एक वरदान मान रहा था और हीन भावना सब भारतीयों में घर करती जा रही थी।

यूरोप के सन्तुगत वैज्ञानिक आविष्कार भी महर्षि ने हीन भावना उत्पन्न नहीं कर सके थे। उनका मन्तव्य था कि तीव्र बन्दूक आदि जिन अस्त्र-शास्त्रों वास्तविक शक्ति से चलने वाले जिन यानों और तार टेलिकोन आदि सधार के जिन सलानों पर पाश्चात्या लोग अभिमान करते हैं वे सब और उनसे भी उत्कृष्ट उपकरण प्राचीनकाल में भारत में विद्यमान थे। वेदों के आधार पर उन्होंने ऐसे यानों की सत्ता प्रतिपादित की जो अकाल्य जल और स्थल सर्वत्र समान रूप से आ-जा सकते थे। महर्षि ने जब यह सब लिखा तब तक विमानों का आविष्कार 20वीं सदी के प्रारम्भ तक भी नहीं हुआ था। भारत के लोग कहीं पाश्चात्य ज्ञान-विज्ञान के समुच्च अपने को हीन न समझने लगे इसलिए महर्षि ने कहा- जिन्तनी विद्या भूगोल में फेली है वह सब आर्यावर्त देस से भिन्न बल्लों उत्तरे नूननी उनसे कम और उनसे यूरोप देश में उनसे अमेरिका आदि में फेली है।

डॉ. कलाम ने अपने आधिकारों से महर्षि दयानन्द के मन्तव्य की पुष्टि की। सेंट जोसेफ कॉलेज से प्रथम श्रेणी में स्नातक की परीक्षा उत्तीर्ण करने के बाद गद्दास इन्स्टीट्यूट ऑफ टेक्नोलॉजी में प्रवेश लेने के बाद डॉ. कलाम ने दूरस्थ करके आगे अध्ययन जारी रखा। इसी समय विज्ञान पर हिन्दू नामक प्रतिद्वन्द्व पत्रिका में उनके लेख छपने से उनकी छ्वाति बढ़ने लगी और व्याख्या के लिए अर्योंओं से निमन्त्रण मिलने लगे। इससे उनकी अर्थिक स्थिती भी ठीक होने लगी।

1990 से 1970 के बीच स्वदेशी तकनीक द्वारा अन्तर्लिप्त में राकेट मेजने का काम सम्पूर्ण शक्ति और आसा से प्रारम्भ किया गया। प्रोपेल्शन के लिखे राकेट में लगने वाले कायोजनिक इन्जन की स्वदेशी तकनीक से तैयार किया गया सर्वोच्च अमेरिका ने तो कायोजनिक इन्जन देने से ही रना कर दिया और सोवियत देस ने ऐसी तैयारी नहीं किई फल कलाम भारत के लिए सम्मन ली था। 1983 में मिसाइल बनाने के महत्वपूर्ण कार्यक्रम डॉ. कलाम को सौंप गया। वे 17-18 घंटे प्रतिदिन काम करते थे। उन्होंने एक नई 5 मिसाइलों की डिजाइन तैयार की और 10 वर्षों में भारत को मिसाइल के क्षेत्र में स्वाभिमानी बना दिया।

धृतिवार आत्मरक्षा के लिए जीवन का लक्ष्य सतार का उपकार

डॉ. कलाम का स्वप्न टोपडोम है कि आत्मरक्षा के लिए हथियार का निर्माण किया जाय। किन्तु के दमन का बोधन के लिए हथियार नहीं बनाने जाते हैं। अतुल्य द्वारा वेदव्याज की शक्ति प्रचलित नहीं हो इसलिए हथियारों का निर्माण करने उद्यम चाहीये चाहीये इतना देस अवरजमेत रहे। दुष्की लोगी की सैन ही हमका लक्ष्य होना चाहीये।

डॉ. कलाम औषधि निर्माता भी

डॉ. कलाम के माई को कलाम ने पेलिस्वी से गाय था। हथियार बंदे, डकैत सब का बहुत ईश्वरत कलाम पर कोई लान नहीं हुआ। डॉ. कलाम के मन में असा कि सलाम केने के कलाम ने पदार्थ कर्मन-कर्मन से पेलिस्वीकरा लोको के लिए कीलितपद बनाया था पेलिस्वी केने के जितन कलाम मात्र 400 ग्राम होना। इसी उद्यक के अन्य मातु से बने कीलितपद का वजन 4 किलो से कम नहीं होता।

डॉ. कलाम ने मरीनों के बय रेग के ईश्वरत के लिए अवरजमेत कोलन और विवकलन लोगों के लिए

काकपुर के आयोजित आर्यवीरगंगा शिविर
डॉ. कलाम एवं स्वामी धर्मबन्धु जी

राधेश्याम आर्य एडवोकेट
मुसाफिरखाना-227813 सुल्तानपुर उप्र

उत्तराखण्ड की यात्रा का रोमांचक वर्णन

—सत्यप्रताप सामवेदी

मत्ताक से आये — जयपुर से यात्रीवल 9 जून को प्रातःकाल 10 बजे सामगढ तल्ला से रानीखेत के लिए रवाना हुआ। भ्रमर को सामगढ तल्ला में आयोजित आर्य सम्मेलन में उत्तराखण्ड के विमान सम्पादक श्री यमपाल आर्य को आना था परन्तु उत्तराखण्ड की विमान सेवा में आग लग गई थी इसलिए यमपाल आर्य आना सम्भव नहीं हुआ। यदि हम 9 जून को प्रस्थान नहीं करते तो हमारा यात्री दल उत्तराखण्ड के अनेक दर्शनीय स्थलों को देखने से वंचित रह जाता। आत हमें सौन्दर्य के आभार सामगढ तल्ला से विदाई लेने के लिए बाध्य होना पड़ा और हमारी पर्यटनरोहण की प्रक्रिया प्रारम्भ हो गई।

सामगढ तल्ला पर्वतों की तलहटी में है। आत वहा से प्रस्थान करने पर निरन्तर आरोहण ही आरोहण है। कुछ ऊँचाई पर जाने पर हमे हिन्दी की अमर कथाविहारी श्रीमती महादेवी बर्मा की साधना स्थली दिखाई दी और उनकी रहस्यमयी कविताओं की प्रेरणा स्थली के अतिरिक्तनीय सौन्दर्य को देखा। जब हमारी गाड़ी भगवती पर पहुँची तो आनन्द एक वृद्ध सज्जन गाड़ी के सामने खड़े हो गए और हमारे ब्रह्मद्वार को ब्रह्म लगाकर गाड़ी को रोकना पड़ा।

नीसम बड़ा सामगढ था। रिम-रिम-रिम-रिम बरखा हो रही थी। मैंने बस की सिडकी से झाँक तो दो खूब सुस्त बगले दिखाई दिने और उर हरीमिया मण्डित प्राणम मे दो तस्विया लगी हुई थी। एक पर लिखा था सत्त्वाना विला और दूसरे पर जीन विला। इस सारे सुन्दर परिवेश को देखकर हमारी कामना हुई कि कम्पा। हमारी भी ऐसा ही विला होता और हम भी कुछ दिन उस विला में रह पाते। ऐसा लग रहा था जैसे चाँद तारेक सौन्दर्य की बसता हो रही हो।

जिस वृद्ध सज्जन ने बस रोक दी वे पूछ रहे थे कि क्या इस बस में सत्यप्रताप जी हैं। अगर हैं तो उन्हें बाहर भेजो। मुझे भी आश्चर्य हुआ कि इस पर्वतीय नगर मे मेरे लिए बस को किसने रोका। ज्योही मैं बस के द्वार पर गया तो मैंने देखा कि श्री विद्यासागर शास्त्री खड़े थे। मुझे देखकर लिपट गए और कहने लगे ऐ-सत्यप्रताप! मुझसे मिले निना कैसे जा सकते हो। नीचे उतरा देख मैंने तुझे पकड़ ही लिया। आज अखबार मे नामच देते हुए तेरी फोटो देखी। वो गाड़ी तुम्हारे सामगढतल्ला की और रवाना ही होने वाला था। हमसे मिलने के लिए। हमने वे तुम्हारी बस दिखाई दे गई और मैंने इसे रोक लिया। मैंने कहा—आपने याद किया और मैं आपके द्वार पर आ गया। मैं आपको सामगढ तल्ला आने की तकलीफ कैसे दे सकता था?

वे हम सब यात्रियों को प्रेमपूर्वक अपने विला मे ले गए। उनके पुत्र पुत्रकुश और उनके दामाद भी वहीं थे। उनकी पुत्रकुश ने हमें नास्ता कराया। 40 यात्रियों के लिए चाय बनाई। श्री विद्या सागर शास्त्री मे प्रेम और उपासक का अवगुण निमग्न था। बार-बार कहते—सत्यप्रताप बहुत बदमास हैं! इसने मुझे आर्य प्रतिनिधि समा के प्रधान पद से हटाया। मुझे धक्के ठक्के बाहर निकाला। इस पर भी वे चुपची में फूले नहीं समा रहे थे और बड़े प्रेम पूर्वक मुझसे कहा—ये सत्यप्रताप! देखा किन्तीन प्रणम जगह है। छोड़ आर्य समाज के प्रभाव को। जिस तेरी मर्जी हो तब यहा पर आओ अपने परिवार के साथ जितने दिन रहना चाहे इस विला में रहा करो। इस प्रकार हमारे दो घंटे वही व्यतीत हो गए। सबकी बहुत अच्छा लगाना। वहा से सीधे रानीखेत की ओर रवाना हुए। क्योंकि अखबार जाकर रानीखेत से बहुत विलम्ब हो जाता।

रानीखेत बहुत सुन्दर पर्वतों की श्रृंखला पर स्थित है। बड़े-बड़े गोल्फ के मैदान हैं। यहां से घुमावदार सड़कों पर चक्कर लगाते हुए शाम को 5 बजे अल्मोड़ा पहुंच गए।

हम भी जयदत्त उग्रसिंह का घर बूढ़ रहे थे। उसी समय पहाड़ से आवाज आई—

सामवेदी जी

मैंने जब ऊपर की तरफ देखा तो भी जयदत्त उग्रसिंह आवाज लगा रहे थे। वे भागे-भागे हमारे पास आया और हस्तोन्ने सार्वजनिक निर्माण विभाग सचिवय के सहायक निदेशक हैं हमारी आस्था की व्यक्तिका की। वहा से चारो तरफ पहाडियों पर जगमगाता हुआ अलमोड़ा दिखाई दे रहा था। समस्त यात्रीगण उस प्राकृतिक सौन्दर्य को देखकर पावकित हो गए और अकथन प्राकृतिलिङ्ग होकर कहने लगे— पाई जी! इस यात्रा में आज पहली बार परम आनन्द की अनुभूति हुई। किन्तु मनोहारी दृश्य है। वे दृश्य की अपेक्षा उत्तम आनन्द व्यक्त्तिका से बहुत प्रसन्न थे। रात्रि को भी जयदत्त उग्रसिंह ने अपने घर पर मुझे भोजन के लिए आमन्त्रित किया और अल्मोड़ा से 15-20 कि.मी की दूरी पर स्थापित गुरुकुल के विकसल के बारे में परामर्श करते रहे।

प्रातःकाल हम 9 बजे उदत्कर उत्तराखण्ड के सर्वश्रेष्ठ पर्वतीय नगर कोसानी चले गए। यहा से हिमालय की पोटिया दिखाई देती हैं परन्तु प्रातः सुर्गोदय के समय। दोपहर को बादल छा जाने के कारण ये पोटिया दिखाई नहीं देती। मैं यात्रियों के साथ महारना गांधी के आनासथा आनन्द मे गया। जहा अनेक बड़े पूर्व में एक रात रुका था और प्रातःकाल हिमालय की पोटिया देखी थी। आज कल यहां का परिवेश बदला हुआ था।

इस आश्रम के चारो तरफ होटल ही होटल थे। जहा एक कमरे की एक विन की दर 500रु के 600रु तक थी परन्तु अनासथा आश्रम में कारमेद्वी में 10रु में विस्तार साहित चायबूढ़ उपलब्ध थी। वहा हमारी रहने की बहुत इच्छा थी परन्तु 2 बजे गुरुकुल के उत्सव मे जाना था। आज हम गुरुकुल पहुंच गए। उसी समय प्रौद्योगिकतया सिंह और स्वामी अग्निवेश जी भी वहा आ गए।

गुरुकुल की यह सुस्पष्ट भूमि रानीखेत के मुब्या मार्ग पर थी। यहांपि इस क्षेत्र में आर्य

पाव्य हरिजन का पर्याय है तो भी यह आश्चर्य जनक है कि अनेक ब्राह्मणों की आर्य समाज के प्रति असीम सहानुभूति है।

गुरुकुल के लिए ये 12.5 एकड़ भूमि एक ब्राह्मण ने दी थी। वहा पर 2-3 कमरे बने हुए हैं और उस गुरुकुल में केवल दो छात्र हैं। उस गुरुकुल के निर्माण में श्री जयदत्त उग्रसिंह के परिवार ने एक लाख रुपये का धन दिया। यह 12.50 एकड़ भूमि का दृश्य इतना मनोहारी था कि मानो कि सौन्दर्य पुजीपूत होकर बैठ हो। ऐसा लगता था कि क्षितिज तक गुरुकुल की हरितगामिनीत घरा का विस्तार हो। इस स्थान और मनोरम स्थल को देखकर यह इच्छा हुई कि कोलाहल की घरती से दूर इस पर्वत की गोद में एक रात-दिन परमेश्वर का स्वरूप किता करें। शीतल मद समीर निरखल प्रेम कक्षा के गीत गा रहा था।

अल्मोड़ा मे स्वामी विवेकानन्द आए थे। कविचर सुमित्रानन्दन पंत ने अल्मोड़ा मे स्वामी विवेकानन्द के आगमन पर हर्ष विमोह होकर कविता लिखी थी।

इस गुरुकुल के सत्पापक प जयदत्त उग्रसिंह ने कहा कि उत्तराखण्ड में अधविस्था, जातिवाद, अस्पृश्यता पशुबलि आदि कुतियाव्या व्यापक हैं। ज़ासी यह है कि कुलीन वर्ग अपने बच्चे को इतिहास नहीं भेजता कि कही ये बच्चे अस्पृश्य बच्चों के साथ खाना-पीना करने अपना ब्रह्म न कर लें और दलित जातियों की वैदिक सत्स्मि के प्रति कोई आस्था नहीं रह गई है। गुरुकुल के दो छात्रों ने देवी का जटा पाठ सुनाया।

मैंने इस अवसर पर कहा कि दो विद्यार्थियों से गुरुकुल कैसे चलेगा और इतके लिए रुपया भी कौन देगा? प उग्रसिंह महान विद्वान है परन्तु उनकी विद्वता का किन्तु नुस्त्रयोंग हो रहा है? यह तो आर्य जगत का सौभाग्य है कि उत्तराखण्ड में प उग्रसिंह जैसा विद्वान आर्य समाज की सेवा कर रहा है। सारा आर्य जगत यही करे से जोटी तक का जोर लगा ले परन्तु दूसरा जयदत्त उग्रसिंह खड़ा नहीं कर सकता।

रानीखेत के मुब्या मार्ग पर गुरुकुल का यह अल्पना मनोहारी प्राणम स्थित है। मैंने उग्रसिंह जी से पूछा कि आप के बाद इस गुरुकुल को कौन चलावेगा। उनको पास सत्यप्रता कोई उत्तर नहीं था। मैंने सुझाव दिया कि यहां पर एक अल्पना भव्य वेद मन्दिर एवं धामप्रभय आश्रम खोलने की योजना बनानी चाहिए। यहां इतना भव्य वेद मन्दिर हो कि उत्तराखण्ड आने वाले पर्यटकों के लिए यह मन्दिर एक महत्त्वपूर्ण दर्शनीय स्थल रहे। इसे आर्यवीर दास के शिखिरों का केन्द्र बनाया जा सकता है और वास्तव्य आश्रम भी बनाया जा सकता है। यदि विश्व की समृद्ध सारी आर्य समाजों एक-एक कमरे बनने का सकल्प ले तो यह आर्य जगत का प्रसिद्ध दर्शनीय स्थल हो सकता है। ऐसी ही योजना के अन्तर्गत सामगढ तल्ला मे भी भव्य आश्रम का निर्माण किया जा सकता है और श्रीगणेशकान्त में धार्मिक सम्मेलन आयोजित किये जा सकते हैं।

इस गुरुकुल के सम्मेलन मे आर्य समाज आदर्शनगर जयपुर ने 6000/- रुपये की धनराशि दान में दी और अन्य यात्रियों ने भी तीन-चार हजार रुपया दान मे दिये। हमने उसी दिन नेथाल कार्बेट पार्क देखने के लिए हल्द्वानी जाना था परन्तु अल्मोड़ा में आर्य समाज के विवाद के कारण 8-9 बज गए और हमें उस दिन अल्मोड़ा ही रुकना पड़ा। हमारे साथ जो यात्री थे वे दूसरे दिन नैनीताल जाने का आग्रह करने लगे। बच्चों को नेथाल कार्बेट पार्क देखने की बजाय नैनीताल मे ले-वे-वे पर सवारी करने का अधिक शौक था। आत दूसरे दिन हम नैनीताल चले गए। वहा का रीक गार्डन नैनीताल मे अत्यन्त दर्शनीय स्थल है जहा पर घट्टानों को चौर कर बड़ी-बड़ी गुफार बनाई गई हैं।

नैनीताल के अनेक दर्शनीय स्थलों को देखा परन्तु यदि हमने गवर्नर हाउस (नैनीताल) नहीं देखा होता तो हमारा नैनीताल आना व्यर्थ था। गवर्नर हाउस में प्रवेश शुक्र प्रति व्यक्त 50रु था। गवर्नर हाउस क्या था इन्द्र का कानन वन था। इतने भव्य और सुन्दर जगत् देखकर सब आश्चर्य वंचित हुए। विभिन्न प्रकार के फूल बूझ और रेशमी घास।

सायकल 6 बजे हमने नैनीताल से जयपुर के लिए प्रस्थान किया। दिन की गर्मी से बचने के लिए हमने रात को यात्रा की। प्रातःकाल 7 बजे हम मधुरा पहुंचे। यहां समस्त इष्टार्थी के लिए रुके। साईंदास कर्मचारियों की हस्तगत के कारण सारा रहर नग हो रहा था। हमारे साथ की कुछ महिलाओं की इच्छा थी कि बिजानामन्द्व की कौटिया देखें। उस छाटि की देखने के लिए एक हमने बाह्यार में प्रवेश किया तो सत्य के गढ़े पानी से सारी सत्तक भरी हुई थी। उस गढ़े पानी में हमारे कपड़े खराब हो गए। ऐसा प्रतीत हो रहा था जैसे किसी सत्तावा परम में हमें फटक दिया हो। उस गढ़े पानी में मधुरावासी मजे से कचोरी-जोड़ी खा रहे थे। चौको लोग अन्त नग्नावस्था में दुकानों के बाहर तख्तों पर बैठे हुए थे।

मधुरा के पेड़े अतिरिद्ध हैं। जिन्हें जो लारो वे भी पछताए और जो ख ख ख भी पछताए।

विस्ती भी यात्री ने पेशे खाने की इच्छा प्रकट नहीं की।

इस गढ़े पानी को चौरते हुए हम जब बिरजानामन्द्व कुटि पहुंचे तो यहां ताता लगा हुआ था। अब यह ध्यान को यात्री है एक तीन मंजिला मकान है। हमें बताया गया कि इस मकन की देखभाल करने वाले एक बुजुर्ग सज्जन हैं। ये सामगढ तल्ला में आयोजित महासम्मेलन में गए हैं और आज लौट रहे नहीं हैं। आर्य जगत के हमने महत्त्वपूर्ण दर्शनीय स्थल की यह स्थिति देखकर सदा यात्री बहुत निरास हुए। यह है दर्शनीय स्थलों के प्रति हमारी ब्रह्मा।

अब लू के थपेडों से यात्री परेशान होने लगे। हम चारों तरफ लू के थपेडे सोते साथ 4 बजे जयपुर पहुंचे। वहा हमारी एक हवा का हर एक झोंका हमें हिमालय की ठंडी खारियों की य द दिलाता था। ऐसा प्रतीत हो रहा था कि हमने स्वर्ग से नरक तक की यात्रा की है। फिर भी जब हम अपने घरों में पहुंचे तो हमें अपने घर स्वर्ग से भी अधिक अच्छे लगे।

(सम्पाद)

सुविन का ब्रह्मण्ड वाले एक सत्त्वान की भी स्वाभ्यन्तरी है। उन्होंने अनुरूप नामक एक कम्प्यूटर विकसित किया जिससे ट्यूटोर का ऑनरेशन असम्भवी से हो सकता है। ईन्टर के रोग के ईलाज के कोरेलेटो कौनसा सस्ते दवाओं में उपलब्ध करने में डॉ. कलाम का महत्वपूर्ण योगदान रहा। हैदराबाद के इन्द्र रोग विशेषज्ञ डॉ. राजू के साथ मिलकर बॉयोबैथेकल टेक्नोलॉजी सोसायटी की स्थापना की जिससे द्वारा इन्द्र रोग के उपचार के लिये अनेक उपकरणों का निर्माण होता है। डॉ. कलाम और डॉ. राजू ने सन्तान प्रयोगशाला में एक ब्रह्म की कोज की जिसका उपयोग स्टेटे कनान में किया जाता है। पहले वह स्टेटे विदेश से मगाना जाता था और इसका मूल्य पांच गुना अधिक होता था। इसका उपयोग इन्द्र की बहू-प्रास सज्जरी में होता है। डिफेंस मेटालर्जिकल



प्रासला के शिविर में प्रशिक्षण लेने आए आर्य वीर

लेबोरेटरी द्वारा विकसित डिटेनिंग धातु का उपयोग दस्त बनाने के लिए होता है। इसी धातु की प्लेट हड्डी जोड़ने के उपयोग में लाई जाती है। इनका नाम ब्रह्म और दिव्य रत्न गंगा है। ये प्लेट विदेश से मगाने लाई थी। डॉ. कलाम ने तुलसी के श्री आचर्यजनक उपाधियों का प्राप्त लगाया है और इसके प्रयोग से महिलाओं को रक्त एवं गर्भाशय के ईन्टर का उपचार होता है। शरीर के अन्तर के उपयोगी अंगों के लिये यंत्रण आग बनाने कार्यकिस की सस्ती पद्धति का विकास ओंकों के लिये दृष्टि नाम के सामान का विकास एवं प्लास्टिक टेक्नोलॉजी के विकास में डॉ. कलाम लगे हुए हैं।

संस्कृत साहित्य के अध्येता

शिविर में आर्यवीरों को यह ज्ञान कर आश्चर्य हुआ कि डॉ. कलाम गीत रामायण महाभारत एवं अन्य संस्कृत ग्रन्थों का भी अध्ययन करते हैं और उनसे प्रेरणा लेते हैं। संस्कृत साहित्य के प्रति उनमें असीम आदर पाया है।

महान देशभक्त

उन्होंने विदेशों में बसने वाले वैज्ञानिकों को सदैव दिव्य ई कि यदि फेर के पीछे नहीं भागा हो तथा सच्चा देश की ब्रह्मा हो तो तुम्हारी प्रतिभा के निष्कार के लिये भारत से आओ जगह नहीं है।

भारत रत्न कलाम— मातृदेवी भव, पितृदेवीभव



डॉ. कलाम का भाषण सुनती हुई आर्यवीरगणार

भारत रत्न की उपाधि से केवल दो वैज्ञानिकों को ही सम्मानित किया गया। पहले वैज्ञानिक डॉ. सी वी रमन और दूसरे वैज्ञानिक डॉ. कलाम। 25 नवम्बर 1997 को शाम साढ़े सात बजे जब पेंडिथे और टेलिविजन से उन्हें भारत रत्न से सम्मानित करने का सम्बन्ध प्रसारित हुआ तब डॉ. कलाम को अपने 103 वर्षीय पिताजी और 97 वर्षीय माताजी की याद आई जिन्होंने धीरे धीरे गरीबी के बावजूद उच्च शिक्षा के लिये अपने पुत्र को प्रेरित किया। उन्हें याद आई अपने बचपन के मित्र रामास्वामी की और उसके परिवार की जिसने उच्च शिक्षा प्राप्त करने के लिए उन्हें आर्थिक सहायता दी। उन्हें याद आई महान वैज्ञानिक विष्णु रामकृष्ण की जिसने उनकी प्रथमा को पहचान और इन्होंने आगे बढ़ने के लिए प्रेरित किया। इस अवसर पर कलाम डॉ. कलाम ने महान वैज्ञानिक सतीश धवन एवं ब्रह्मरुद्रकर जैसे वैज्ञानिकों को याद किया।

भारत रत्न मिलने पर उन्होंने वैज्ञानिकों की 'नई पीढ़ी को सदैव दिव्य— दोस्तों! तुम्हारे हाथ में महाशक्ति है उसमें आगि प्रज्वलित करो। मैं तो उन परम्पराओं पर चलने वाला एक साधारण वैज्ञानिक हूँ। भारत रत्न की उपाधि मिलने पर उन्होंने बड़ी 'महामूर्च्छा' कहा था— मुझे भारत रत्न से सम्मानित होने पर चुकी हुई। यह पूरे वैज्ञानिक समुदाय का सम्मान है जिसके कारण मुझे यह सम्मान मिला इससे मेरे साथ काम करने वाले जिनको का उत्साहजन्य होगा।

डॉ. कलाम द्वारा
श्री मगास्तोत्रम्

देवि सुरेश्वरि भगवति गये त्रिभुवनतारिणी तरल सररी
पतितोद्धारिणी जाह्नवी गये दूरी कुरु मम दुष्कृतिभारम्।

डॉ. कलाम पायलट बनने चाहते थे परन्तु 1968 में वायु सेना ने उन्हें इस पद के योग्य नहीं माना और उनकी विमान चालक बनने की कामना कुचल दी गई। निराश कलाम ने जाने कौी ऋषिकेश की ओर स्वाना हो गए और गंगा की तीरल धारा में डूबकी लगा कर गंगा में्या से प्रार्थी की—

दूरी कुरु मम दुष्कृतिभारम्।

इस सम्बन्ध में आर्यवीरों को अपनी व्यथा सुनाते हुए डॉ. कलाम ने कहा कि गंगा स्नान के बाद

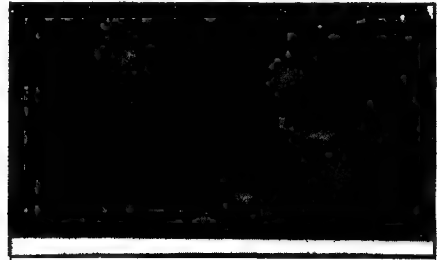


प्रासला के शिविर में श्री खैरनार और डॉ. कलाम का स्वागत करते स्वामी धर्मबन्धु जी

मैं स्वामी शिवानन्द के पास गया और व्यथा सुनाई। स्वामी जी ने मुझे सान्त्वना देते हुए कहा कि तुम वर्षों में ही दुःखी हो रहे हो। ईश्वर नहीं चाहता कि तुम विमान चालक बने। तुम अपने हित में इसे ईश्वर की इच्छा मानते हुए साहस के साथ जीवन पथ पर बढ़ते रहो। स्वामी जी के इन शब्दों से मेरी सारी व्यथा दूर हो गई। मैं तुम उत्साहपूर्ण कार्य में जुट गया और नई दिल्ली लौट आया। अगले ही दिन मुझे खास मन्त्रालय के तकनीकी विकास एवं उत्पादन निदेशालय में वरिष्ठ वैज्ञानिक सहायक की 2500 की नौकरी मिल गई। आज मैं सोचता हूँ कि यदि मुझे पायलट की नौकरी मिल गई होती तो क्या मैं वैज्ञानिक बन सकता था? और शिक्षा की इन ऊँचाईयों तक पहुँच सकता? इसलिए ईश्वर जो करता है उसे ठीक करता है।

ईशवास्यमिदं सर्वम्

अनुभव बनाने के औचित्य पर विचार व्यक्त करते हुए डॉ. कलाम ने कहा कि दुनिया में शक्तिशाली का ही अस्तित्व रहता है। दुष्टों और रक्षकों के विनाश के लिए हथियारों की शक्ति बहुत जरूरी है। मर्यादा पुरुषोत्तम राम को भी ऋषि विश्वामित्र से जो अदुष्ट हथियार मिले थे उसी से वे रावण एवं रक्षकों का वध कर सके। महर्षि स्यान्न्द ने भी सत्सर्वा प्रकाश में लिखा है ईश्वर उपदेश करता है कि मे सज्जनों! तुम्हारे आन्त्यास्त्रादि अस्त्र और शस्त्रों मुण्डली धनुष बाण तलवार आदि शस्त्र



प्रासला के शिविर में प्रशिक्षण लेने आए आर्य वीर

शस्त्रों के पराजय करने और रक्षकों के लिये प्रसिद्ध हों और तुम्हारी सेना प्रसन्नगी होवे कि जिससे तुम सदा विजयी होओ।

देशोन्नति के पौंव उपाय

डॉ. कलाम ने शिविरार्थियों को सम्बोधित करते हुए कहा कि आप सब देश की उन्नति के लिये विनियत रहते हो। इसीलिए आर्य समाज देश में हजारों शिविर आयोजित करता है। मैं आर्य समाज के युवा स्वासेवी स्वामी धर्मबन्धु जी का बहुत बड़ा प्रसन्न हूँ। वे मुझे कभी भी और जब भी बुलाते हैं मैं आ जाता हूँ क्योंकि वे राष्ट्र की नई पीढ़ी को तैयार कर रहे हैं। इस महान कार्य में उनको मदद करना हमारा कर्ज है। इसीलिए मैं यहाँ आया हूँ। मेरी दृष्टि में देशोन्नति के पौंव उपाय है 1 शिक्षा और स्वास्थ्य 2 कृषि और खाद्य प्रसन्नकरण 3 सूचना और संचार तकनीकी 4 आवायलूत ढाँचे का विकास और 5 महत्वपूर्ण क्षेत्रों में आत्मनिर्भरता।

डॉ. कलाम ने शिविरार्थियों से पूछा कि जब हमारे पास पड़ोस में परमाणु हथियार भर पड़े हो तो क्या हमें बैलखन तपस्या करनी चाहिए। भारत और पाकिस्तान दोनों देशों के पास अनुभव है इसीलिए दोनों देशों के बीच युद्ध नहीं हुआ और न होगा। अनुभव शक्ति के लिए आवश्यक है।



जम्मू में हिन्दूओं का संहार क्रन्दन का आकाश, पिशाचों का अट्टहास, सिसकियों के शोक गीत

जम्मू में मुस्लिम पिशाचों द्वारा बड़े बड़ों जवानों निर्यात व बच्चों का कत्लेआम जारी है। इन मुस्लिम पिशाचों का दृढ़ विश्वास है कि इन कश्मिरी की बैरदारी से हत्या करने पर उनका खुदा बहुत खुश होगा और उन्हें जन्नत मिलेगी। दुनिया में धर्म और रीत का नाम पर जो कुछ खराब हो रहा है उसका मूल कारण यही है कि कुछ महावलम्वी अपने पैगंबर को खुदा का देवदूत मानते हैं और उस तत्वाकर्मित देवदूत के कथन को ईश्वर का संदेश मानते हैं। वास्तविकता यह है कि सैतान देवदूत का लबादा ओढ़कर दुनिया को धर्म का संदेश देता है।

15 जून को जम्मूपुर जिले के बंदर गँव में सात आत्महत्यादियों ने एक घर में घुसकर अवाकूश गोदिया चलाई और एक हिन्दू परिवार के पांच सदस्यों की हत्या कर दी तथा बार बार ओंकार धामल कर दिया। इसी दिन इसी पिशाचों ने तीन तीर्थ यत्रियों की हत्या कर दी। तीर्थ यत्री तीर्थ स्वरूप शारदा माता के दर्शन कर लौट रहे थे। इस कारणवत के बाद आत्महत्या घास कुतवाड़ा गांव में घुसे। ग्राम रक्षा समिति के सदस्यों ने उन्हें अलकापार पत्थर पुराणियों ने उनकी भी हत्या कर दी।

इस हत्याकाण्ड को अभी एक मास भी नहीं था कि खुनी भेड़ियों ने जम्मू शहर की एक झुग्गी बस्ती काश्मिनगर में 12 जुलाई की रात को 24 नरसद्यों की हत्या कर दी और 31 जने धायल हो गए। मरने वालों में 12 महिलाएँ, 11 पुरुष और 9 बर्ष का एक बच्चा भी शामिल है। मरने वाले सभी हिन्दू थे।

मुम्बई के परियारों ने आडवाणी की खबर ली

सैतानधत के सुषित दरिद्रों ने उप प्रधानमंत्री को 24 अगस्त की रात को सानदार तोफ़ दिया और उनकी यही विधिबिधि वाली प्रतिक्रिया—हथ हत्याकाण्ड आत्महत्या का संदेश गाना बगै और बार बार ओंकार कर देना शुरू तोड़ उठाया देगा। जब आडवाणी काश्मिनगर झुग्गी बस्ती में गए तो झुग्गी बस्ती वालों ने शौर नचाया—बहादुर आजी आडवाणी फरकवा का लाला उकैठ दो फरकवा को भी बहादुर लाओ। कुछ लोग भी कह रहे थे कि इन सबके लिए फरकवा विधानवार है।

लश्कर जिम्मेदार

जम्मू-कश्मीर प्रश्न ने जम्मू नरसंहार के लिए अफ़की समान लश्कर—ओरंग का जिम्मेदार ठहराया है। पुलिस प्रमुख एफ़े एच ने कहा कि हमारे पास इस बात की पुष्टि सुबूत थी कि लश्कर जम्मू में हमलों की सज्जि कर रहा है। उन्होंने कहा हमलावर अभी जम्मू के आस पास ही हो सकते हैं।

पाक दौरी : सिन्धु

सिन्धुसिन्धु यकथा सिन्धु ने जम्मू नरसंहार के लिए फकिस्तान को जिम्मेदार ठहराते हुए कहा कि यह नरसंहार विमानवायु पुनालो में गम्भीर पैदा करने के लिए किया गया। एक निजी टीवी को फिर सारकारक ने कम्बोने कहा कि इस कथन को अमान देने वाले अफ़कीसियों को पाक से फ़काम निगाह है। जब भी आत्महत्या करते जम्मू-कश्मीर ने नरसंहार करते हैं तब आडवाणी जी भी यौनवा कथने कि सिन्धु तब जवान दैने तो दैने नहीं मीत तब जवान? ये आत्महत्या घास

कुले जम्मू की सीमखो तक घुसने की हिम्मत कैसे करते हैं? हमारा खुशियातन इतना निकम्मा क्यों है?

हमें मनु महाराज के इस संदेश को हृदयगमन करना चाहिये—जिस राजा और उसके राजपुरुषों के देखते हुए बीखरी पुरानी प्रजा को दसगुना पकड़कर ले जाते हैं उसे बस हुआ समझो—गोहित नहीं।

कश्मीर को तीन भागों में बांट दो

29 जून को कुश्नखेत्र में राष्ट्रीय सत्य सेवक सच के अधिकार भारतीय कार्यकर्ता मच की बैठक हुई जिसका उद्घाटन सच के प्रमुख के सी सुदर्शन ने किया। इसमें देश भर के 250 प्रतिनिधियों ने भाग लिया। इस बैठक में जम्मू और कश्मीर को तीन भागों में बांटने का एक प्रस्ताव पारित किया गया। जम्मू और कश्मीर को अलग-अलग राज्य तथा लद्दाख को

है। कश्मीर के हिन्दूओं के खिलाफ जातीय उत्पन्न का जघन्य अभियान चल रहा है।

संघ कश्मीर पुनर्गठन के लिए जनजागरण करेगा

राष्ट्रीय सत्य सेवक सच जम्मू-कश्मीर के पुनर्गठन की माग को लेकर जनजागरण अभियान चलाएगा।

सच के अधिकार भारतीय सह सम्पर्क प्रमुख इन्द्रेक्ष कुमार ने बताया कि जिस तरह कुछ दशक पूर्व पंजाब के पुनर्गठन से हरियाणा एवं हिमाचल बने उसी तरह से जम्मू-कश्मीर का पुनर्गठन कर जम्मू को राज्य एवं लद्दाख को केंद्र शासित प्रदेश बनाने की माग की जा रही है। लद्दाख क्षेत्र में लगभग 33 प्रतिशत और जम्मू क्षेत्र में 36 प्रतिशत मुस्लिम होंगे। विकास के मामले में इन क्षेत्रों के साथ मैदानीय किया जा रहा है। इसी कारण लद्दाखी और जम्मू के लोग

सबसे संघ से अलग राज्य की माग करते रहे हैं।

सच का आरोप है कि जम्मू एवं लद्दाख में जनसत्ता सतलुन को बदलने का षडयंत्र भी चल रहा है। इसी नीति के तहत राज्य में पुनर्गठन कियेक लाने करने का प्रयास चल रहा है। यह कानून लागू होने पर वर्ष 1947 से 1954 तक पाकिस्तान चले गए या उनकी अगली पीढ़ी के लोग बापिस आकर जम्मू-कश्मीर में बस सकेंगे। देखी नागरिकता के प्राधान्य को भी जनसत्ता सतलुन बिगाड़ने के लिए काम में लिया जा रहा है। हजारों लोगों को नरसंहार केरकर बह प्रमाणित करने के लिए कहा गया है कि वे राज्य के नागरिक हैं। इस गम्भीर परिस्थिति को ध्यान में रखते हुए सच ने एक प्रस्ताव पारित किया है। उनका कहना था कि पुनर्गठन से कश्मीर घाटी बनकर रहे अलग नहीं होने वाली। कश्मीर घाटी में एक प्रति आत्मकान्तरियों द्वारा कत्लेआम के कायजुब बरत



काश्मि नगर (जम्मू) नरसंहार में मारे गए लोगों के शिल्लक परियान

केंद्र शासित क्षेत्र बनाने की बात कही गई जो एक तीन सदस्यीय समिति की रिपोर्ट पर आधारित थी। इस समिति के अध्यक्ष थे—पंजाब एवं हरियाणा के पूर्व मुख्य न्यायाधीश जितेंद्र नीर गुप्ता एवं अन्य दो सदस्य थे—बज्रगम लाल गुप्ता और बांत अली। इस समिति की रिपोर्ट के अनुसार जम्मू कश्मीर की सरकार पर कश्मीर घाटी वालों का कथना है जो हिन्दू बहुल जम्मू और बौद्ध बहुल लद्दाख से भेदभाव करती है और सीतला व्यवहार करती है। यदि जम्मू और लद्दाख कश्मीर से अलग कर दिया जाता है तो मुस्लिम बहुल सरकार हिन्दुओं और बौद्धों पर अत्याचार नहीं कर सकेंगी। समिति का फरमान है कि भाषा और रस्सी की दृष्टि से भी जम्मू, लद्दाख और कश्मीर घाटी में कोई समानता नहीं है। कश्मीर में कश्मीरी बोलै है जबकि जम्मू में डोगरी बोलै है लद्दाख की अलग भाषा लद्दाखी है। धार्मिक मतभेद भी है। कश्मीर में मुस्लिमों का बहुमत है और जम्मू में हिन्दुओं और लद्दाख में बौद्धों का मुस्लिमों की निषिद्ध आबादी है। सच के प्रस्ताव में कहा गया है कि कश्मीर के हिन्दुओं को जेहादी तर्कों द्वारा धमकाते करने से भयाना जा रहा है और उनके कश्मीर घाटी में जहा है हजारों बर्षों से रहे हैं सुषित कम से पुनर्गठन की जरूरत

अच्छी तादाद में राष्ट्रभक्त मुसलमान हैं।

सदन में आडवाणी का बयान

परन्तु सच परिवार के उम्दा नेता भी आडवाणी ने इस प्रस्ताव का विरोध करते हुए कहा कि बापिस आकर पर किसी प्रदेश को बांटने का सवाल ही नहीं उठता। आडवाणी ने सदन में कहा कि यदि पाकिस्तान आत्मवाद पर लागू करने में नाकामयाब रहता है तो अफ़कीर को उसे आत्महत्या देह पवित्र कर देना चाहिए। बहाल के दौरान कश्मिर समेत सभी सिन्धु दलों ने अफ़कीर लाया कि सारकार के पास आत्महत्याओं से निपटने की न तो कोई दवा है और न ही इच्छा रहित। केवल पाकिस्तान को जिम्मेदार ठहराने से पार नहीं चलेंगे।

काश्मीर और आर्य समाज

कश्मीर का भारत में विश्व आर्य सम्प्रदाई नेता जतिरत गेहर सच, महानन्द के कथन हुआ। महानन्द भक्त समान प्रसाद मुजली ने काश्मीर का एक अभिमान आर्य समाज की संरक्षण एवं और फिर पर सारकार प्रारम्भ किया था और लद्दाखी कथ्य प्रतिनिधि समूह के अध्यक्ष एवं पर भाग्य बंदी और काश्मीर का एक प्रतिनिधि आर्य समाज के अध्यक्ष विनाश का पत्थर उठाया और समाज की कोई नुकसान नहीं है। यह पत्थर की गैर ने केवल उन्हा सजल नयने से देह के विनाश के चित्र को देखा रहा है।

॥ धुवर्षभदेवार्थं उपपत्तौ
उत्कल आर्य प्रतिष्ठिति सप्त ॥

श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा की गतिविधियाँ

- 1 ट्रस्ट द्वारा निम्नलिखित उपदेशसंस्थानों का चलाया जा रहा है जिसमें लगभग 100 ग्रामस्थानी विद्यार्थी हैं।
- 2 टकारा ट्रस्ट द्वारा स्वामी जी के जीवन पर आधारित एक विश्वविद्यालय, श्री-संस्कृत केन्द्र सार्वजनिक पुस्तकालय अतिथिगृह निम्नलिखित औपचारिक संचालित किया जा रहा है।
- 3 वह गुरु ज्ञान स्वामी जी का जन्म हुआ था ट्रस्ट ने अपने अधिकार में ले लिया है इस स्थान पर सत्संग हॉल वैदिक साहित्य विषय केन्द्र आर्यो-विदुषः अतीथिगृह के निर्माण की योजना है। इसको विस्तारपूर्ण बनाने के लिये लाखों रुपये दान स्वरूप आवश्यकता है।
- 4 प्रतिवर्ष प्रति मेला/श्रद्धा बोधोत्सव के आयोजन पर हजारों श्रद्धा भक्ता टकारा फव्वारे हैं। सभी के आवास और भोजन की पूरी व्यवस्था टकारा द्वारा निम्नलिखित की जाती है।
- 5 ट्रस्ट परिवार में नये निर्माण का कार्य प्रतिवर्ष किया जा रहा है जिसमें पिछले दो वर्षों में लगभग 40-45 लाख का व्यय हुआ। नवनिर्मित भवन पूर्ण सुविधाओं से युक्त है जिन्से फव्वारे वाले श्रद्धा भक्ता अपने प्रयास के दौरान सुविधा प्राप्त कर सकें।
- 6 टकारा में जो इतना कार्य हो जा रहा है वह केवल आपके सहयोग एवं दान राशि से ही सम्भव हो जा रहा है। प्रत्येक श्रद्धा भक्ता का कर्तव्य है कि ट्रस्ट द्वारा किये जा रहे कार्यों के लिए हर वर्ष अधिक से अधिक राशि भेजकर श्रद्धा भक्त से उल्लेख होकर पुण्य के भोगी नै। आप अपना दान नई दिल्ली टकारा अथवा मुम्बई के फॉर पें भेजकर स्वीकृत प्राप्त कर सकते हैं।
- 7 टकारा ट्रस्ट को दान दी जाने वाली राशि आवश्यक से युक्त है।



श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा

आचार्य महर्षि (संस्कृत) के द्वारा चलाये जा रहा है। 1925-1926

श्रद्धा भक्त भूमि टकारा ग्राम पर

महर्षि दयानन्द द्वार

निर्माण हेतु अपील

श्रद्धा भक्त टकारा को कि सज्जको-नीली चमकाना पर

विशाल है पर कोई ऐसा किशोर नहीं है जो ज्ञान सागर का

श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा

इसी समय में इस वर्ष ट्रस्ट ने ऐसा निम्नलिखित किया है कि

टकारा नील के प्रवेश बल पर ही एक विशाल 'महर्षि

दयानन्द द्वार' का निर्माण किया जा रहा है। 80 फुट लम्बा और 20

फुट ऊँचा इस द्वार में तीन द्वार होने विद्यार्थी मध्य में 40 फुट

लम्बा और इसके चारों तरफ 10-10 फुट के दो छोटे-छोटे द्वार

होने वाले ज्ञान के द्वारों के लिये होने और जीवा का द्वार

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वाणी सफलता की कं

इस्वर ने मनुष्य को कई महत्वपूर्ण विवेकपूर्ण प्रदान की है। उनमें सबसे महत्वपूर्ण प्रभावशाली भाषण है मनुष्य की वाणी। यदि हमारी बोलीने की लया अपने विचार व्यक्त करने की क्षमता के बारे में गम्भीरता से विचार करें तो हम जान पायें कि प्रत्येक मनुष्य में हमें यह किताबी दिव्य उपलब्धि प्रदान की है। किन्तु हम इस अमूल्य योग्यता के बारे में उदासीन रहते हैं। इस पूरे सत्संग में इस्वर ने अनेक प्राणी पशु पक्षी आदि को उत्पन्न किया है। किन्तु अपने विचार तथा भावनाओं की अनिवार्यता की योग्यता सिर्फ मनुष्य को वाणी द्वारा प्रदान की गयी है। सूची का कोई भी प्राणी अपनी भावना वाणी द्वारा प्रकट नहीं कर सकता। किन्तु विद्वत्ता है कि वह अपना कुछ कुछ नहीं प्रकट कर सकता। वाणी की महत्ता हमको इन पशु-पक्षियों को देखकर हो सकती है।

हमें बोलना आता है इतना ही पर्याप्त नहीं है। हमें वाणी की शक्ति तथा महत्ता के भलीभाँति पहचानना होगा। हमें अपनी वाणी को परिशोधित करना होगा। जैसे एक कलाकार अपनी कलाकृतियों को सफाई है उसी प्रकार हमें अपनी वाणी को भी सफाई देना होगा। एक सोची समझी नवीपुत्री और सुसंस्कृत वाणी द्वारा आप अनेक समस्याओं को हल कर सकते हैं। इस गुण द्वारा आपका व्यवहार बेहतर होगा। आपका यश सत्संग में बढ़ और फैलेगा। आप सबके सम्मान के पात्र बनेंगे। आप चाहें किसी भी क्षेत्र में काम करते हों। सतुलित विचार और सुसंस्कृत वाणी द्वारा आप उस क्षेत्र में उत्कृष्ट के शिक्षापर विद्यमान हो सकते हैं। इस योग्यता की हर क्षेत्र में निराला आवश्यकता है। अगर इसकी उपयोगिता से इनकार नहीं कर सकते। उदाहरण के रूप में आप एक व्यापारी का विचार कीजिये। यदि व्यापारी अपने ग्राहकों से प्रत्यापूर्वक स्नेह और मरुता से बोलता हो तो ग्राहक बार-बार आना चाहेगा। इस तरह उसके ग्राहकों के साथ सम्बन्ध दृढ़ हो जायेंगे। उसका ग्राहक परिवार हमेशा बढ़ता चला जायेगा। कुछ समय में यह अपने व्यापार को सफलता के शिखर पर ले जा सकता है। जबकि एक अन्य कठोर वचन बोलने वाले व्यापारी के पास कोई नहीं जाना पसंद करेगा। उसका व्यवहार पुनः ठग हो जायेगा। इसीलिए वह जरूरी बनता है कि हम अपने वाणी को प्रत्यक्षपूर्वक रूप से बनाएँ।

बुद्धिमान लोग आपके बात करने के ढंग से ही आपकी शिक्षा संस्कृति तथा वातावरण को पहचान लेते हैं। सफल बनने के लिए जिन जरूरी गुणों की आवश्यकता होती है उनमें वाणी बहुत महत्व रखती है।

अपनी वाणी मधुर रसपूर्ण तथा नम्र बनाने के लिए हमें कुछ गुणों को धारण करने की आवश्यकता होती है। हमारे बोलने में हमेशा सकारात्मक दृष्टिकोण होना चाहिए। हमें हमेशा आशा यश और विजय की बातें करनी चाहिए। नकारात्मक बातें बोलने से आप

लोगों को निराशाहित करते हैं। हमें लोगों के अच्छे कार्यों की सराहना करनी चाहिए और उनको उत्साह और प्रेरणा देने चाहिए। कुछ लोगों को अपना दुखड़ा बताने की आवश्यकता होती है।

अगर आप अपने हालचाल के बारे में पूछें तो वे अपना दुखड़ा बताने में हर्षित हो सकते हैं। हमें यह समझना चाहिए कि दुःखी व्यक्ति के पास कोई आनन्द नहीं रहेगा। सब कुछ के भागीदार बनना चाहते हैं। इसलिए हमें केवल प्रसन्नता सुख और आशावादी बातें करनी चाहिए। इस प्रकार के बोलने से लोग आपकी तरफ आकर्षित होंगे। वे आपको देखकर लगे आपका सारा चहरे। ऐसा क्यों होता है किसी समस्या या किसी सर्वजनिक चर्चा में किसी व्यक्ति से साथ अधिक लोग बात करना चाहते हैं। इसका कारण है उसका व्यवहार, वाणी और आपका मरु होना। यह अपनी बातों से किसी का दिल आकर्षित नहीं करता। वह सबको आकर्षित करता है। सबको खुश रखने की कला से ही आप अपने बड़ सकते हैं। सबको खुश करने का मेरा मतलब अत्यंत बुरा बातें बोलना नहीं किन्तु उपाय व सत्य बोलना है। कुछ लोगों को लगता है कि सत्य बड़ होता है और किसी का सुधार करने से तो हमें सब बेचना ही होगा। उनको लगता है कि अगर आपको सत्य बोलना हो तो आपको कटुता का आकार लेना ही होगा। परन्तु वह सर्व शिष्टता व्यवहार है। हमें सत्य बोलते समय या किसी सुधारक सुझाव देते समय मधुरता का संचार लेना होगा।

अगर हम सत्य को मरुता के साथ प्रकट करें तो जो हम करना चाहते हैं वह भी कहेंगे और साथ ही वे किसी का मन भी आस नहीं होगा। अक्सर यह होता है कि हमारे बोलने और कटुवचन से लोग हमसे दूर हो जाते हैं। जिन सम्बन्धों को हमने सच्चे से स्थापित किया था वो सम्बन्ध एक कटुवचन से बिगड़ जाते हैं। कटुवचन आपको बड़ा अहंता होता है। यह आपकी सफलता का मार्ग अवरुद्ध करते हैं।

इसी कारण वाणी को सत्य कहना चाहिए। सत्य तब सत्य से निकलता है जिसमें आपका आसक्त नहीं रहता। सत्य को निराला रूप में बताना नहीं आता। वह तो अपना प्रभाव करने की क्षमता रखता है। सत्य से लगा घाव पर जालियाँ किन्तु वाणी से लगा घाव नहीं होता। इसलिए बोलते समय पूरा विचार करने बोलना चाहिए। जोकर प्रचलन की बजाय हमें सोचकर बोलना चाहिए।

अक्सर हम क्रोध में अपना सन्तुलन

को देते हैं और ऐसा कुछ बोल देते हैं जिसका प्रभाव हमें बाद में होता है। एक तल का क्रोध भी आप में बहुत गुनाहान करता है। हमें अपने आप पर नियंत्रण करना सीखना होगा।

वाणी की मरुता— मरुता वाणी अधिकतर महत्वपूर्ण गुण माना गया है। वेदां में हमेशा मरुवाणी की बात आती है—

मधु मन्त्रं निष्क्रमणं मधु मन्त्रं परायणम् । वाचा वदामि मधुमदं भूयांस मधुसदृशम् । अर्वातः— मेरा जाना मधुसदृश हो। मेरा लौटकर आना भी मधुसदृश हो। मैं वाणी से भीड़ मधुसदृश हो। मैं मनु के सत्संग हो जाऊँ। मरुता के बिना मरुता बोलना निराला होता है। बिना मरुता के सत्संग बोलने की लोभ उठ जाते हैं। वह आपसे पीछा छुड़ाना चाहेंगे। इसलिए जिसे अपने आप को अच्छा बनाने से उसे मरुता पर ध्यान देना होगा। आपको व्यवहार और आचरण से मरुता उपलब्धी चाहिए। वेद तो कहते हैं कि आप मनु सामान बन जायें। दैत केवल वाणी से मधु नहीं होना है किन्तु हमारा अहंकार भी मधुर से भरा हो। अगर आपकी भीड़ और अहंकार में कटुता हो तो ऐसे नाटकीय व्यवहार को लोग जल्दी ही पहचान लेते हैं। हमको अक्सर बाहर से भिन्न प्रेमभाव बनना है।

जीवन में मरुता का इतना महत्व है किताब कि किसी सम्बन्ध में नफ़ा का वा विवाद में भीनी का। बिना वाणी के हमारी नीति निर्धार नहीं हो जा सकती। उसी प्रकार किसी किसी भी महती नहीं हो तो यदि उसमें सम्म नहीं होगा तो वह बेकार रहेगा। इसी प्रकार जीवन मरुता के बिना रक्षणी है। यदि आपकी बोली में मरुता नहीं है तो आपकी अच्छी बात भी दुसरे को अच्छी नहीं लगनी। अगर भी मरुता जीवन में अपना विशेष महत्व रखती है। आपका मरु व्यवहार आपकी बहुत सी कमियों को दूर कर आपको और बढ़ावे में सहायक होना होगा।

वाणी ऐसी बोलिये मनु का आपा सांय । औरन को शीतल करे आप ही शीतल होय ।

लेखक—सुभाष चन्द्रबोर लोक

सौताराना नगर

लाहौर महाराष्ट्र

समस्त वेद प्रेमियों को खुद खबर

समस्त वेद प्रेमी जनता को सूचित करते हुए हमें होता हो रहा है कि आर्य समाज व्यापारण द्वारा एक बेवसाईट तैयार की जा रही है जिसके द्वारा चार वेद सत्यार्थ प्रकाश श्रुतेवादि भाष्य भूमिका वेदांग तथा आर्य उपनिषदों की सम्पूर्ण विषय प्रचार करने की योजना है। इस महान कर्म के लिए आर्य समाज जगन्मनर सभी धर्म प्रिय सज्जनों से तन मन-धन से सहयोग की आशा कर रहा है। श्रेयो कि इस कार्य हेतु प्रथम वन की आवश्यकता होगी।

वेबसाईट— www.aryasamajmagmagar.org

ई-मेल— info@aryasamajmagmagar.org

आपकी फव्वारे के विश्व टकारा ट्रस्ट की दी जाने वाली राशि आवश्यक से युक्त है।

— निदेशक —

आचार्य महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा

आचार्य महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा

आचार्य महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा

आचार्य महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा

आचार्य महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा

आचार्य महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा

16-2-91

आर्य समाजियों। सख्तदार। अजर तुमने मोहम्मद साहब एव कुरआन की आलोचना की तो तुम जेल की हवा साओगे और तुम्हारी जमानत भी नहीं होगी

श्री मदनमोहन आर्य का गंगापुर सिटी में एक विचारधारा है। गुरुकुल को नया शिक्षा सत्र प्रारम्भ हुआ और मदनमोहन जी उन विचारधारा की एक जुलाई को खुला। गैर सार्वकारी विद्यालयों में सारा काम जुलाई के प्रथम दो सप्ताहों में होता है परन्तु

और यह कहते आए हैं कि जब तक इन आचार्य प्रथा का अस्तित्व है तब तक विश्व में शांति नहीं हो सकती। इन आचार्यों की आलोचना के कारण निजाम ने हैदराबाद में और मोहम्मद अली जिन्ना ने सिंध में सत्कार्य प्रकाश पर प्रतिबंध लगाया था परन्तु इन

आचार्यों से बुनिया में खूब बराबा हो रहा है मुझे हो रहे हैं शांति भग हो रही है। पर हम आज यह घोषणा करते हैं कि हम हर मय से हर दरो देवार से व्याख्यान एवं व्याख्यान के बाहर दहशत कर कहेगी कुसुमा की इन 24 आचार्यों से विश्व की शांति भग होती है।

इन आचार्यों के कारण ही इन्सानियत का खून होता है इन आचार्यों के कारण ही कलह मानसता के खून से जाल होती है इन आचार्यों के कारण ही नभ्यों का खून होता है और उनके कारण क्रान्त से आसमान का कलहो कानून लगता है इन्हीं आचार्यों के कारण ही हमारी करोड़ों बहिन विधवा होती है और उनके कारण क्रान्त से घराबर जगत् दहिश होकर आसू बहाता है।

इन 24 आचार्यों की आलोचना करना जुर्म है तो हम अपना जुर्म कमजोर करते हैं और बार-बार यह जुर्म करने की घोषणा करते हैं। यदि इसकी सजा फांसी है तो हम फांसी पर एक बार नहीं लाख बार चढ़ने के लिये तैयार हैं। अब हम सब नारे लगायेंगे—

जो खोले सो अमय
वैदिक धर्म की जय।
वेदोद्धारक महर्षि
दयानन्द की जय।
भारत माता की जय।

गुरुकुल आश्रम आमसेना

अखिर देख नयापार उडीस-1

गुरुकुल आश्रम में नये छात्रों का प्रवेश

गुरुकुल आश्रम में नये छात्रों का प्रवेश 16 जून से प्रारम्भ होगा। जो कृष्ण अपने बालक को शिक्षा बलवान और राष्ट्रप्रेम बनाना चाहते हैं वे अपने सुपुत्रों को गुरुकुल में प्रवेश कराए। गुरुकुल में आर्य जातकधर्म से कक्षा 6 (प्रथम) से एम ए (स्नातको) तक शिक्षा का प्रवेश प्रथम है। यहा प्राचीन व्याकरण उपनिषद दर्शन वेद सामान्य महामातरा निरुक्त आदि की शिक्षा दी जाती है शिक्षा के विषयगत विनयार्थ कृषि भाषावनी गीताला विविधता औषध निर्माण कम्प्यूटर आदि में विद्यार्थी में कितलकल ज्ञान करवा जाता है। भोजन साहित्यक साधन निर्व मसले से रहित होता है। भोजन करवा 1500 ग्रामसिक है। गुरुकुल में महर्षि दयानन्द विश्वविद्यालय रोहतक के द्वारा परीक्षा दी जाती है प्रमाण पत्र की विश्वविद्यालय से मिलते हैं।

जबरी प्रकार की व्यवस्था कदापि के लिए आदर्श कक्षा गुरुकुल आमसेना में है। यहा आकाशक साक्षात् आदि सब महिलारों है। विशेष जानकारी के लिए—आचार्य की गुरुकुल आश्रम आमसेना नयापार से सम्पर्क करें।

निवेदक
आचार्य

सचरात सभरेरी, सम्पदक एव मुद्रक 198-13 पञ्जाब पत्र, डाक बिलु सिटीन हल सदा औपचार्य करने जगपुर वे 301
सम्पदक भोगी नि: 2287/77 क 02200-0-0000 विमलमोहन साहब
आर्य समाज सिद्धा संस्थी पर सिद्धा संस्थी कर्तव्य नगर, जगपुर वे 301नगर वे 301नगर

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| <p>जेल सम्पदक सभरेरी सम्पदक आर्य नीति आर्य समाज छात्रावली जगपुर-4 राजस्थान</p> | <p>2 श्री धर्मापाल आर्य उप कुलपति गुरुकुल कांगड़ी विश्वविद्यालय हरिद्वार</p> |
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उपचार्य के गुरुकुल श्री कलक नवलेख आर्य समाज के लिए से कलकल की सदा की जमानतों की हवा।
श्री मदनमोहन आर्य गुरुकुल से कलकल करने हुए एक बहिन कुं विविधन से उलखी हैं

गंगापुर सिटी में अधिन जमानत न होने के कारण उन्हें 1 जुलाई को ही जगपुर आया फका और श्री सत्यदात साहबदेवी उन्हें इस संकट से मुक्त करने के लिये रात-दिन भग्य रोक करने लगे। उन्हें जगपुर आए 20 दिन हो गए हैं। उनका विश्वास राम मरतेसे चल रहा है। इस दौरान श्री मदनमोहन को कितनी आर्थिक हानि और मानसिक पीडा हुई इसकी आप कल्पना नहीं कर सकते।

यदि आर्य समाज के पास कोई लोक शक्ति होती या आर्य समाज का कोई विद्यालय या सासद होता तो अब तक इन्टरनेट करने वाले अधिकांशों के विरुद्ध कार्यवाही हो गयी होती। यदि आर्य समाज जिन्दा होता तो सारे राजस्थान में आग लग जाती परन्तु आज तो आर्य समाजों में सन्नाटा छाया हुआ है। किसी निषादन नेता को आर्य समाज से निकालना तो वे अपने कवे पर गमावा रहे हुए और अपने जेब से सैकड़ों रुपये खर्च करके सैकड़ों सभासिद्धि प्राप्तकार्यवा आ जाएंगे। परन्तु आर्य समाज के लिये अपने प्राणी की आहुति देने वालों पर उन्हें सकट आया तो कोई व्यक्ति मदद के लिये नहीं आया और न ही कोई आर्थिक सहायता देना। ऐसे अवसरों पर जब सत्कारित नेताओं को बुलाया जाएगा तो वे तो सादी का सहना करेगा और किसी बीमारी का।

पाठकभग स्वयं विचार करें कि क्या यह कोई मुकदमा है? क्या मदनमोहन जी पालत थे जो एक दर्जी की दुकान पर जाते और मोहम्मद साहब व कुसुमा की आलोचना करते? मोहम्मद साहब और कुसुमा की आलोचना तो आर्य समाज अपने जन्मकल से ही करता आ रहा है। दयानन्द के अनुयायी तो खुले आग सत्कार्य करते आए हैं

सत्यदेवी को आर्य समाज द्वारा प्रेषित जमानत आदीलों के सामने बुकना पडा और सत्यार्थ प्रकाश पर से प्रतिबंध हटाना पडा।

गंगापुर घघकने लगा चल्हा व्याख्यान में अधिन जमानत के लिये अभीत खारिज होने के बाद गंगापुर धक्कने लगा है। सैकड़ों आर्य युवक व अन्य सत्यदेवी लोग आदीलों की तैयारी में जुट गए। गंगापुर जाँचियों का कहना है कि यदि मदनमोहन की हत्या लगाया तो गंगापुर सिटी में आग लग जायेगी। आज युवक राजस्थानी सरकार से पूछ रहे हैं कि कम्प्यू एव सरकार की हर चौकरी के बाबजूद विश्व हिन्दू परिषद के नेता ब्रह्मचर पुलिस की आँखों में घुल ब्रह्मचर का गंगापुर सिटी में कैसे घुस गए? क्या सार्वजनिक सभा को कैसे सम्मोहित किया? जब श्री तोगडिया ने सभा में बह कहा कि हम सारे भासा वर्ष को गुजरात बना देंगे तब उन्हें निरपराध क्यों नहीं किया गया? उन्हें गंगापुर सिटी से बिना किसी सख्खान के कैसे जान दिया गया? दिल्ली के इमाम बुखारी मजिदर की मोटी पर उन्हें होकर पीकते हैं कि मैं गलिबखान का एजेंट हूँ। सरकार की हिम्मत हो तो मुझे पकड़कर दिखावे। पुलिस अधिकांशों को ऐसे देशाद्रोहों को पकड़ने की हिम्मत नहीं होती और खुदी रिपोर्ट लिखवाकर बेचारे मदनमोहन आर्य को मितरात करने का बहमस जाया जाता है क्योंकि आज आर्य समाज एक बुद्धि हुई है।

फिर भी गंगापुर सिटी के आर्य युवक सिद्धादत करते हुए घोषणा करते हैं—मदनमोहन ने निनाक 21 जून को देशद्रोही प्रतिनिधित मुस्लिम समान सिद्धी के कार्यकर्ता मुसलमानों की दुकान पर जाकर तो यह नहीं कहा था कि कुसुमा की 24

आर्य नीति का उद्देश्य

1. देश-विदेश की आर्य समाजों में घटित घटनाओं से आर्य जगत को अनुसन्धान जानकारी देना।
2. आर्य समाज के पुनर्जागरण के लिये आर्य जगत को प्रेरित करना।
3. आर्य समाज को राष्ट्रीय धारा से जोड़ना और राष्ट्र की जलनत समस्याओं पर चिन्तन एवं निवारण के लिए राष्ट्र व्यापी संगठन बनाना।
4. आर्य समाज द्वारा धार्मिक सांस्कृतिक सामाजिक व राजनीतिक क्षेत्र में किये जा रहे कार्यों की जानकारी देना।
5. समर्पित एवं निष्ठावान कार्यकर्ताओं का आर्य जगत को परिचय देना।
6. देश में 1000 समर्पित निष्ठावान कार्यकर्ताओं महिलाओं एवं युवकों को परिचय देना।
7. आर्य समाज के आदर्शों से प्रेरित शिक्षण सत्यज्ञों के माध्यम से देश में सशक्त छात्र शक्ति खड़ी करना।
8. विश्व के आर्य परिवारों का संगठन बनाना।
9. देश के 100 विद्वानों की परिषद बनाना।
10. विश्व की समस्त भाषाओं में वेद सन्देश प्रकाशित कर वैदिक धर्म की विश्व को जानकारी देना।
11. विश्वसत्य के लिए विश्व व्यापी आदील चलाना कष्टरदाद अन्धविश्वास अज्ञानता के विरुद्ध मुहिम छेड़ना तथा देश में राजनीतिक सामाजिक धार्मिक सांस्कृतिक आर्थिक क्रांति के लिए अभियान चलाना।
12. आर्य आर्षावर्ग वे कि परमपिता परमेश्वर हने इन उद्देश्यों की प्राप्ति के लिए शक्ति एवं सामर्थ्य दे।

तन मन धन से सहयोग व धातकगण 100 रु सहयोग राशि भेजने का कष्ट करें।

॥ श्री ३३ ॥
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वर्ग 2 अंक 40 06 सितम्बर 2002 मूल्य एक प्रति 3 रुपये डाक पंजियन संख्या RJ-2637/2001 वार्षिक मूल्य 76 रुपये

वेद प्रचार सप्ताह

महर्षि दयानन्द के सपनों का आर्य समाज

जिसका प्रधान होगा श्री नारायण चतुर्वेदी, मंत्री होगा श्री ए.आर.अहमद, कोषाध्यक्ष होगा श्री डब्ल्यू. रबर्ट एव पुस्तकालयाध्यक्ष होगा सरदार जोगेन्द्र सिंह

जब पुर 18 अगस्त। आर्य समाज आदर्श नगर, जयपुर में 18 अगस्त से 25 अगस्त, 2002 तक वेद प्रचार सप्ताह अत्यन्त उत्साह और उमंग के साथ मनाया गया जिसमें हजारों धर्म प्रेमी आर्य नर-नारियों ने भाग लिया। इस वेद प्रचार सप्ताह में आर्य जनता के मुख्य सच्चायी स्वामी आर्यबोध जी सरस्वती

यानप्रस्थ आश्रम ज्वालामुख हस्तिनार ने अपने प्रेरणा-दायक भाषणों से श्री साधुओं को भावविभोर कर दिया। स्वामी जी ने महर्षि दयानन्द सार्वार्थ प्रकाश और वेद महिमा का ऐनामक वर्णन करते हुए बताया कि यज्ञ एक वैज्ञानिक परिघोष है किन्तु कलानगर ने सार्वार्थ और अनपढ़ लोगों के सपनों में यह जाने से इसे विश्विध भ्रम्यताओं से जड़ित कर दिया गया। ऋषिद्वय दयानन्द ने इसकी महत्ता को बुझ सही रूप में प्रस्तुत किया और बताया कि यज्ञ व्यक्ति से सम्पत्ति तक के लिए लाभदायक है। ऋषिद्वय के अनुसार जो भी व्यक्ति प्रतिदिन यज्ञ करता है, अनिवार्य नहीं है कि उसे उपलब्धि प्राप्त हो ही जाये। उपलब्धि प्राप्त करने हेतु परमेश्वर की भजना प्रेरणा। आधुनिक जीवन में अपने व्यवहार पर ध्यान देना आवश्यक है कि हम अपने से जोड़ें, अपने परिवार अपने से बढ़ें के साथ वेसा व्यवहार करें। अपने से छोटी का खार करे, प्यार करें। अपने से बड़ी का सत्कार करें, सत्कार करें। व्यवहार बराबर सलो से करें।

सार्वभौम के सपनों में नहीं आता चाहिए। जोखिम से सीधित व्यक्ति को संन्यासी बनने की सोचना ही नहीं चाहिए। संन्यासी तो समस्त का पथ प्रकाश करता है। यह स्वयं किसी पद पर मौलिक नहीं होता। गुरुस्वी किंसा हो? मेरे ऋषिद्वय का कहनाय प्यार और उस पर आधारित करे- जो सांसारिक सुख और मोक्ष का आनन्द पावते हैं। जो निरर्थक पुनर्जन्म जीवन में प्रवेश करें। पुनर्जन्म से बचने के लिये और ऐश्वर्य का उपभोग करने।

वेद सप्तमोद में कहा कि सप्तमोद जेहो और पुनर्जन्म को समझने की चेष्टा करें। एक दुर्लभ की सुभाषणों की कला करें। सप्तमोद की प्रेरणा में ही सच्चा आनन्द और मोक्ष प्राप्ति है।

समाज में निरर्थक भ्रमनान से बचना है। निरर्थक भ्रमनान से पूर्व विधान से और तीनों चरित्रवान से बुरा है। तो है भ्रम्यो! चरित्रवान बनो जिससे विश्व तुमसे डरे। विश्वास प्रतिभावाली देव दयानन्द ने चरित्रवान बनने हेतु मानव के क्रियाकलापों का अत्यन्त सुन्दर वर्णन अपनी पुस्तक सार्वार्थ प्रकाश में किया



वेद प्रचार सप्ताह में उपस्थित श्रीताम्रण एव स्वामी आर्यबोध जी सरस्वती को राजस्थानी साधु पहनाकर सम्मानित किया गया

है- 'भ्रम्यो जन्म का लक्ष्य सत्यासत्य का निर्णय करके सत्य को ग्रहण करने के लिए होता है। यथार्थ का बाद-विवाद और झगड़ा करने के लिए नहीं। क्या ऐसा संदेह किसी और ने दिया-नहीं। अतः अपनी इस धरोहर को सुरक्षित रखो। अपने को चरित्रवान बनाओ।

ऋषि ने बताया कि मरितक और इन्द्र के योग का नाम ही भ्रम्योद है। सत्यासत्य का निर्णय लेने में मरितक सायक है यही निर्णय निर्णय को बाधन करने में बाधक है। अतः अपने में ही बुद्धि का का विकास करो यज्ञ और विश्वास को जीवन



स्वामी आर्यबोध जी सरस्वती को साधु आर्य समाज आदर्श नगर, जयपुर के पदाधिकारीयन

— स्वामी आर्यबोध सरस्वती ने उद्घाटन का प्रयास करी। अपने प्रयाजन की सिद्धि को सम्पत्ति में बाल दो। मूल्यकर ने अपने अत्युत्तम विमान से समाज की विक्तियों को जड़ से नष्ट करने का जीवन प्रयास किया।

मात्र प्रभु पर विश्वास करने से ईश कृपा भी प्राप्त होती। वैदादि सत्य शास्त्रों में स्पष्ट है कि मनुष्य जितना-जितना

उपकार करता है परमेश्वर भी उस पर दयावृत्ति रखता है कृपा करता है। ऋषि की कामना है कि सत्तार के सब प्राणिमात्र केवल स्वस्थ ही न हो अपितु सत्त्व की आत्मा भी बलवती हो जिससे वह श्रेष्ठ और योग्य व्यक्ति का पुनर्जन्म करे जिससे समाज और राष्ट्र उन्नतशील बन सके।

हमें गर्व है कि हम आर्य समाज के तत्त्वधर्म हैं। सज्जन व्यक्तियों का समाज ही आर्य समाज है। परमेश्वर की भावना

से पुनर्जन्म ही सत्त्वधर्म है, अन्यथा दुर्जन है। मेरे ऋषि की कल्पना का प्रमाण

माही आर्य समाज इस प्रकार का होगा- उस आर्य समाज का प्रधान होगा श्री नारायण चतुर्वेदी मंत्री होगा श्री ए.आर.अहमद, कोषाध्यक्ष होगा डब्ल्यू. रबर्ट पुस्तकालयाध्यक्ष होगा सरदार जोगेन्द्रसिंह। यज्ञ ऐसी ऋषिद्वय दयानन्द की आर्य समाज दिव्य में बन जाये तो केवल प्रसिद्धि कि विश्व विमान सुन्दर होगा। मन्दिर मन्दिर गुरुद्वारा, विराजदार के झण्डे ही समाज हो जायेंगे।

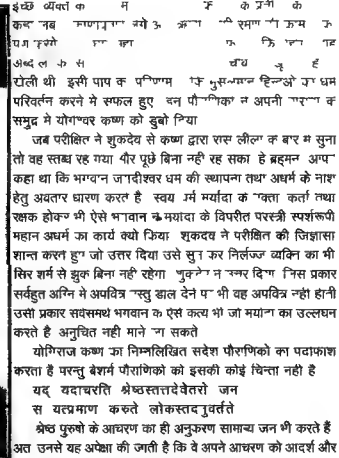
अन्त में मैं यही कहूंगा- न मरिचक से नरज मुखको न मन्दिर से मुखे सत्तार। सिखाया ही करना है अगर कर लेंगे कहीं भी खड़े होकर।

इन मिट्टी के बर्तनों को अब तो समझने दो। देव दयानन्द द्वारा स्थापित आर्य समाज की मूल्यता में अपने को बाध कर उसके आदर्शों के अनुगमन बनाये। पारिवारिक सम्बन्ध बना कर समाज को समृद्धि एवं सुदृढ़ बनाओ।

इस अवसर पर श्री सत्यव्रत सम्मेली ने कहा कि परमेश्वर परमेश्वर ने मानवजाति को अनुपम और निःश्रेष्ठ की प्रप्ति के लिये यही का बना दिया। जब से मानव ने देवी की उपासना करने के मत-मनान्तरों की सुष्टि की है सब से विश्व में ऋषिद्वय है हाहाकार है विश्वास है हिंस्र है मर-मृत है अन्तर्गत को तत्त्वधर्म नहीं है पुनर्जन्म है भोगवाद है। अतः सत्तार में आध्यात्मिक आधुनिक और आधुनिक शास्त्रों के लिये हमें सारे विश्व में देवी का प्रचार करना चाहिए और सत्तार को आर्य नान के लिए अहर्निश प्रयत्न करना चाहिए।

-:: प्रातिक्रिया ::-

जगदीश प्रसाद आर्य उपपधान आर्य पतिनिधि सभा



विद्वान् आर्य है

आदरणीय सत्कृत सामवेदी जी

नमस्ते।

आर्य नीति में प्रकाशित लेख आर्य एतदा मय तथा आर्य विद्वत परिचय की कल्पना परमन्त आर्य एतसिपरि विद्वानो को एकत्रित करने का काम आप ही कर सकते हैं। क्योंकि प्रायः आपको कोई भी विद्वान नकार नहीं देगा। ऐसा मुझे विश्वास लगता है। एक बार आर्य जगत के सभी प्रमोनों का विवाद का निपटारा होगा तो बहुत अच्छा होगा।

आर्य जगत की एकता के बीर आर्य समाज द्वारा कोई भी प्रभावशाली कार्य नहीं हो सकेगा। सबमे एकता रहना अथवा व अन्यथा न होना तो आवश्यक है।

पिरास द्वेय तथा कोई भी सिद्धांत विरुद्ध बर्तान न करने तो ही दब दयानन्द का सपना साकार होगा अन्यथा नहीं।

आपका अपना ही

समाजी पवार महाशय

प्रिय सामवेदी जी

सादर नमस्ते।

यह पत्र लातूर महाराष्ट्र में प्रचार यात्रा में मैं रहूँ मैं भेज रहा हूँ। यह एक आर्य ने आर्य नीति का 21 जुलाई 2002 का एक मुझे दिखाया। मुझे प्रश्नपत्रा हुई यह जानकर कि आपने अनेक सूचनात्मक कार्य हाथ में लिया है व महसूस का लिया है कि विवादों में पड़कर वैदिक धर्म की सेवा नहीं हो सकती। इससे पूर्व गुजरात में मैंने महकर आपकी प्रतिक्रिया को रहा पठकर मुझे दुःख हुआ था। किसी भी प्रांतीय आर्य प्रतिनिधि तथा सार्वभौमिक आर्य प्रतिनिधि सभा ने किसी पक्षित की कोई सेवा न करके राजनैतिक व साम्प्रदायिक बयानबाजी की थी। अब आपके विचारों में परिवर्तन आ गया है व आपने सत्तात्मक कार्य लेकर उसे ही करने का निश्चय किया है तो मैं इसका स्वागत करता हूँ।

भवदीय

भुवन्जितदेव

चूना भट्टिया पुरानी सब्जी मण्डी मार्ग
यमुनानगर-136501 हरियाणा।

गा प्यार से गीत

प्यार न पीछे छोड़ देते हैं प्यार से गा प्यार से।

गीत धर्म के प्रचार के गा प्यार से। १॥

धर्म का लिय बर्तन भी कल्पने में नैलन।

हरसं हि तं व २० जगत् स मा खे। २॥

चाहे हो छली बदन भी बय प्यार से गा प्यार से। ३॥

धर्म को लिए पड़े रवित से ब्याह कदना।

देवा न चरन्ती पड़े सत्तर मे इक्ष्वा।

गले कर जग गीत मेन मार मे गा प्यार से। ४॥

धर्म ही बनारत है इन्द्रान देवान स।

धर्म ही बनारत दब दानव नदाल से।

म म ही जगत् जी। जग मे ह २० गा प्यार से। ५॥

धर्म स मिलनी है मुक्ति पाप नरक द्वार है।

धर्म ही दिलाता सुख स्वर्ग का अपार है।

फल मत लग न दिल कभी नु खार से गा प्यार से। ६॥

धर्म बिन मानव का जीवन ति सार है।

धर्म पर न्कर हुआ समस्त ससार है।

धर्म कर न प्यार छोड़ जाय से गा प्यार से। ७॥

धर्म प्रचार से कभी न मुक्त को मोड़ना।

जब तलक रह मे जिन्दगी धर्म न छोड़ना।

कहता इन्द्रकि पुकार नर व नर से गा प्यार से। ८॥

इन्द्र स्वामी इन्द्रकि (ठा इन्द्रदेवसिंह)

धाम पो विष्णुपुरा कला गाया एकना

जनपद-सारंग (छपरा) बिहार-8

ला रामशरणदास वेद प्रचार स्मारक स्थिर निधि एवम् आर्य समाज, हासी, चार जिलो का आर्य सम्मेलन सम्पन्न

दिनांक 04.08.2002 रविवार को लाता रामशरणदास वेद प्रचार मण्डल हासी द्वारा आर्य समाज मंदिर हासी में महत्वपूर्ण कार्यकर्ताओं की विशेष मीटिंग हुई जिसमें जिला हिसार भिवाजी सिरसा फरोहाबाद के आर्य कार्यकर्ताओं ने भाग लिया।

सम्मेलन की अध्यक्षता डॉ. जयसिंह जी आर्य प्रोफेसर (वि. प्रयाग-जी। वा. प्रयाग) की। सभा के मुख्य अतिथि श्री हीरानंद जी आर्य (पूर्व शिक्षा मंत्री हरियाणा सरकार) थे। सम्मेलन का संचालन आर्य जगत के प्रसिद्ध भवनोपदेशक श्री जगदीश जी खारी ने किया। मीटिंग से पूर्व विधान सभा में प्रतिनिधि सभा में द्वारा सम्पन्न किया गया तत्पश्चात् मीटिंग में मुख्य वक्ता अम बहन सुमित्र आर्य श्री गौड़ साइब प्रमोद अर्य समाज बहल श्री जगदीश जी शिवर प्रधान आर्य समाज सिरसा श्री बदलुराम जी आर्य प्रधान वेद प्रचार मण्डल हिसार श्री रोहित आर्य निम्नीवाली भिवाजी श्री सुनेन्द्र आर्य आर्य समाज बोदीवाली बहन सुनेश जी आर्य चिहोड़ हिसार श्री बन्धनसिंह आर्य शीशर श्री जवाहर सिंह आर्य आर्य ढाणीयास श्री दलवीर सिंह आर्य आर्य समाज डिफेंस कॉलोनी हिसार के विभिन्न विद्वानों ने भाग लिया। आर्य समाज के प्रचार-प्रसार को किस तरह बढ़ाया जाय इस विषय पर निम्नलिखित विचारों द्वारा सुझाव प्रस्तुत किये- आर्य समाजों के भवनों पर ओझ ध्वज एवं विद्यालयों में वैदिक संस्कृति का प्रचार-प्रसार तथा उपदेशकों के पास वेद प्रचार-प्रसार हेतु वाहन साथ ही सुमधुर कैसट तथा महर्षि दयानन्द सरस्वती स्वरचित साहित्य भी गाड़ी में मौजूद हो। गन्दे अस्सील बुटकेले बोलन वाले प्रचारकों पर पारबन्दी लगाई जाय तथा मन से बचन से कर्म से एक ही रास्ते पर चला जाय आदि। इस समय आर्य समाज के पदाधिकारी श्री श्री देववत जी प्रमोद श्री सतीश कुमार आर्य नरही तथा अन्य अधिकारी व सदस्य भी मौजूद थे। सभी सुझावों को सर्वसम्मति से पारित किया गया।

सतीश कुमार आर्य नरही
लाता रामशरणदास वेदप्रचार स्मारक
स्थिर निधि

श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट के मैनेजिंग ट्रस्टी श्री ओकारनाथ जी का निधन

मुझे यह सूचित क्वी हुए अत्यन्त दुःख हो रहा है कि श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट, पञ्जाब के मैनेजिंग ट्रस्टी, आर्य प्रतिनिधि सभा, मुम्बई के प्रधान, प्रसिद्धा सम्मान सेवी एवं उद्योगपति श्री ओकारनाथ जी, 279 ओझ सदन, 36वा रास्ता, बान्ना, मुम्बई-400050 का दिनांक 07 08 2002 को 530 बजे हृदयघात से जलने से स्वर्गवास हो गया है।

रामनाथ सहजान, नरही
श्री महर्षि दयानन्द सरस्वती
स्मारक ट्रस्ट, पञ्जाब
आर्य समाज अमरकली,
महाराष्ट्र, मई दिल्ली-1

वेद एवाह सप्ताह पर

(तिमिर समस्त मिटाओ)

उठो सपुणो! इस भारती का तिमिर समस्त मिटाओ।
वेदो का पावन प्रकाश ले जाओ और जगज्जो।

अन्धकार विस्तृत है पूरे पर
हुआ सूर्य का यह अवकाश।
कैल रहा अज्ञान तिमिर जति
सुन हुआ अब ज्ञान विशाल
बूँट दारवी शक्ति विमुक्ति
करके होती निर्धन जगद।
भय न अब पार्श्व धरा का
होता नहीं तनिक उद्वेग।

उठो! कृष्ण के बहल बीरो! ज्ञान पुन सिखलाओ।
वेदो का पावन प्रकाश ले जाओ और जगज्जो।
ऋषि-मुनियों को वसुधैव कुटुम्बकम्
नेतर मारवात उपनास।
दलबलर का तत्त्व अद्विग हो
करत धरता पर अट्टहास।
सत्य शिवम् सन्मता यत्न
सम्पत्ति का हो रहा विचार।
कस तथा खवण निर्धन हो
मनकुल कर रहे विलास।

बड़ो! रामक बहल! निदा त्पयो धनुष उठाओ।
वेदो का पावन प्रकाश ले जाओ और जगज्जो।
आज मारवात वृत्ति धरा पर
रोती और सिरसकती।
अरत निमल को लहरी है
ज्वरा-कंधा कटु कसती।
स्वर्गिक सुखमयी धरणीवह
नरक दुखो का सहाती।
भग को पारबन धार
प्रतिकूल दिशा में बहती।
शक्ति पुन जगत् सत्य प्रवेश। उठ करके निपाओ।
वेदो का पावन प्रकाश ले जाओ और जगज्जो।
उठो! सपुणो! इस भारती का तिमिर समस्त मिटाओ।
रक्षेयाम आर्य विद्यावाचस्पति
मुसाफिर खाना सुनानपुर उप्र

अन्धविश्वास

सुख भोगकी आशा से बन्धन है होता
कर्मफल भोग वास्ते योनि ध्वज है होता।
राग से मुक्त होने मनुष्य शरीर है जीवन प्राया
निज वतन धर्म की धर में रहने आया
राप्रदायो ने प्रभु व कर्म फल बाँटा मरमाया
दुकानदारी चले ऐसा लन्दोने मार्ग बताया
व्या कर्म फल भोगते सम रह पाया?
परमात्मनोबुध साथ दुख समता से सह पाया?
हजारों धर्म मत नहीं कैदखाने है ये।
पृथ्वा पृथ्वी का व्यापार चलता है ये।
परिच्छद अविरति असाधन हो जहा
चाहे लगती हो भीड़ वहा
कोई भी विरक्त मन्त प्रेता हो पाय न वहा।
दोरा धागा, मन्त्र तन्त्र से धाति को बढ़ाया
धित धणा लोके धणा पुत्र धणा हो जहा
गुरु शिष्य के बीच अज्ञानता हो जहा
पूरा मनुष्य भी पैदा न हो पाया वहा।
जीव निज वतन धर्म से दूर होना गया
पाप कर्म का भय और होता गया।
जागो जागो! अन्धविश्वास ने मत उसझो,
चोषणा करो कि धर्म के नाम दुकानदारी बन्द करो।

-सुधन कुमार आर्य-

084 भवन निवास
जवाहर कीर्तनी सदावाचस्पतर
अध्यापक-382478

आर्य समाज मन्दिर, बी-ब्लॉक, जनकपुरी, नई दिल्ली-58

सार्वदेशिक सभा एक प्राइवेट लिमिटेड

कम्पनी बनकर रह गई है

दिल्ली आर्य प्रतिष्ठिति सभा नई दिल्ली के मजदूरी की इन्दुरद जी के निमन्त्रण पर दिनांक १३ ०८ २००२ को प्रात सात बजे आर्य समाज मिट्टी रोड नई दिल्ली मे उपस्थित हुआ। अत्यन्त ध्यानपूर्ण जग देखा तो ज्ञात हुआ की यह सभा सार्वजनिक सभा के अतिथि है न की विद्वान न कोई यजमान । हा सभप्रेमी दानवीर की गणेशदास जी मुख्य यजमान के आसन पर विराजमान है। अन्य सभ सासन पर स्वतन्त्रतापूर्वक आहुति देने वाले व्यक्ति उपस्थित होकर आहुति दे रहे थे।

यज्ञ के विशेषज्ञ श्री पूज्य स्वामी दीक्षानन्द जी सरस्वती के ब्रह्मत्व में वृष्टि यज्ञ हो रहा है।
 १ ५ २ १ १ ५
 से निराश वातावरण पाया।

वृष्टि यज्ञ के अनुकूल न सामग्री और न ही समीपाए। वेदपाठी तोता रटन्त की भाँति मन्त्र पाठ कर रहे थे मानो कहीं रेल या हवाई जहाज पकड़ना हो। अश्रद्धा पूर्ण वृष्टि यज्ञ एक उपहास मात्र रहा।

सांख्यिक सस का आयोजन हो और उपस्थिति कल 40 या व्यक्ति हो यह शोभागीय नहीं है न कोई पूर्य सूचना जनश्रुत के अधर 42 व्यक्ति उपस्थि हो रहे थे। यह सस दृश्य और समफल गी बसल सपली चिन्तित मद्रा से देख रहे थे।

वर्षि यम मे आर्यों से अन्य वर्ग का कोई व्यक्ति न था। व्यर्थ समय व्यतीत कर रहे थे
 कि १५ वें पन्ने पर कश्चित् मंत्र पद्य प्रयत्न के चरण ३२ वं पन्ने अंत
 दिखाई दे रही थी। न कोई राष्ट्रीय नेता था।

यज्ञ ता श्रद्धापूर्व विधि से किया हुआ ही फलीभूत होता है। सार्वदेशिक सभा स्तर पर राष्ट्र की राजधानी दिल्ली में आयोजित वृष्टि यज्ञ किया और वही उस ऐतिहासिक स्थल पर रहने भारतवर्ष की हिन्दुवादी सरकार ने एक वर्ष आर्य समाज मंदिर को बुलंदकोर से अक्षत कर दिया हो। उसको वृष्टि जलनकारी है कि इस वृष्टि यज्ञ के लिए पं तो अन्तरा सभा बुलाई गईं न दिल्ली के आर्य जनों को विश्वास में लिया गया न समाजवा पत्रों में कोई सूचना दी गईं यह इस बात का प्रमाण है कि सार्वदेशिक सभा को 2 अधिकांसी ही प्राप्तिवै कि कम्पनी की भांति घला रहें है।

मिन्टो रोड आर्य समाज मंदिर की भूमि वापिस लेने के लिए हो रहे प्रयासों पर मीडिया एवं गुप्तचर विभाग द्वारा दी गई रिपोर्ट का सरकार पर क्या प्रभाव पड़गा

[illegible]

पुष्पि यज्ञ को सम्बन्ध में गार्ग्य यजुर्वेद में कुछ ज्ञेय टोत्रों में प्रवर्णित हैं। 'पुष्पे मृष्टं-पट्टकी का विवाह गीदद गीदकी का विवाह मेखकी की बारात लेखन चलाना है। कुछ प्रश्न अचलों में यह प्रसिद्ध है कि इन प्रश्नमान को प्रत्यक्ष करने के लिए नान भिन्नलया ओता में हल चलाना। बिना विषय विधान के बिना भद्रा के विधि विहीन सामग्री के बिना विषय चरानेत वेद मंत्रों के बिना यजमान अथ ब्रह्म के एकनिष्ठ तत्पत्त्या के लिये अथर्वा संराज्य यज्ञ भी टोत्रों टोत्रों को साबित नहीं हो रहे हैं। प्रासिक कर्मव्या इत्ये दिशा की अथर्वा चल रही है।

गुरुकुल कांगड़ी गुरुकुल विश्वविद्यालय में पिछले दिनों अन्तर्राष्ट्रीय शताब्दी महासम्मेलन का आयोजन भी इसी प्रांति कम्पनी ने आयोजित किया था। कहने को तो गुरुकुल कांगड़ी का सचालन आर्य प्रतिनिधि सभा पंजाब हरियाणा तथा दिल्ली समायो करती है परन्तु देखने में यह भ्रमा है कि वहा पर हरियाणा सभा का कोई स्थान नहीं है स्वामी ओमानन्द प्रो शेरसिंह

पंजाब सभा का दुमछल्ला मात्र है। दिल्ली से केवल दो महानुभाव विश्वविद्यालय की कार्यकारिणी में हैं। वर्तमान वहाँ केवल पंजाब सभा का ही है और क्यों न हो? सारी सम्पत्ति आर्य प्रतिनिधि सभा पंजाब लाहौर के नाम थी

अब वह आर्य प्रतिनिधि सभा पंजाब के नाम है। कहते हैं कि गुरुकुल कांगड़ी की भूमि विक्रय में प्राप्त बचने पड़ा भी जालन्धर में ही जमा है। विपणन विभाग का 'व्यापारी भी पंजाब' सभा भी है। यह भी प्रावि कम्पनी का ही अवतार है।

(सब काम धर्मानुसार अर्थात् सत्य और असत्य को विचार कर
करने ।)। नृणां भवति तेषां नन्दो

सम्पादक—राजपालसिंह शास्त्री मधुरलोक

सभी आर्य बन्धुओं को भजनोपदेशक की सूचना

सभी अर्थात् बन्धुओं का खुशित किया जाए है कि आप जन्म दिन विदाह सरकार उपस्थित आदि कार्यक्रमों के लिये आप एक मास पहिले का उपनयन/सिद्धि आर्य भवन/पुस्तक को भुलाकर एक बार सेवा का अवसर देंगे अथवा-प आपकी प्रस्ताव शर्मा आर्य समाज आदर्श नगर जयपुर-४ फोन-६२९८१५२ अथवा का उपनयन/सिद्धि आर्य ग्राम पोस्ट/समाज किला-मालपुर-२९००२ फोन-४०६३३९

हमारी ज्वलन्त समस्याओं का समाधान—संस्कारित जीवन

[illegible]

सुन्दरलाल कथूरिया न डा रमा जी क प्रति आभार व्यक्त करते हुए कहा कि पहले हमे अपने जीवन को आदर्श तथा सस्कारित करना होगा। तभी हमारे बच्चों पर प्रभाव पड़ेगा। कार्यक्रम का सफल सयोजन सचालन मंत्री जगदीशचन्द्र गुलटी ने किया। प्रबन्धन से पूर्व सध्या यज्ञ एवं

भजनोपदेश भी हुआ
यन कं ३६ पाद १ श्री रेड ने थे अपने जु जन ग तपो ह हूँ
के वानप्रस्थी श्री चैनुनि जी ने सब का मनमोह लिया शातिपाठ एव प्रसाद वितरण के गाय
कार्यक्रम सम्पन्न हुआ

आर्य समाज, जवाहर बाजार, टोक

महामहिम उपराष्ट्रपति का हार्दिक बधाई

राजस्थान की पावन नदी सरस्वती अजमेर से की सीढ़ी से नवोदित सरोवरवाट राजस्थान में प्रसरणप्रसूत के पद को शायद प्रमाणित करेगा का दृष्टिगत समानान्तर एवं आसन्न पश्चिम दिशा की ओर से अ हाहिक बह्मप्राप्य एव उनके जीवन की दीर्घायु होने की शुभकामनाओं प्रधान करके है। राजस्थान के लिए यह गौरव का विषय है कि श्री सरोवर के स्थानांतरण के काम में उदयपुर में मेर्सी प्रधानान सरस्वती साधना साध्या प्रकाश दीपक सच, के लिये सन्ध्या प्रकाश साध्या स्थापित कर जलजित के लिये सहारानी का कार्य किया है। 1961 में गुजरात का उदयपुर में स्थित नवलक्ष महल किर्ण एक पथके प घटते पया आर "म" को प्रजापत कर एक महान पुण्य का कार्य किया है जिसे इतिहास में स्वर्णशिरो में लिखा जाना है। सरोवरवाट जी को उदयपुर-द्विने प का दृष्टिगत है।

श्री सुखलाल आर्य प्रधान श्री रामरतन आर्य कोषाध्यक्ष श्री केदारनारायण विनय श्री सीताराम शर्मा श्री जगदीशचन्द्र कसेरा मंत्री श्री नानगराम आर्य श्री गोवर्धनदास श्री मनीष कुमार सुरेश कुमार अदि

जगदीशचन्द्र कसेरा

जगदीशचन्द्र कसेरा
मंत्री

आर्य समाज कसेरा भवन पर आज दिनांक 18.08.2002 का साप्ताहिक विश्व शांति महायज्ञ एवं साप्ताहिक सत्संग का आयोजन किया गया। इसमें यज्ञ पर मुख्य यजमान श्री जगदीशचन्द्र कसेरा रहे तथा परोहित श्री रामरत्न आर्य ने वैदिक मंत्रों से यज्ञ कार्य सम्पन्न करवाया।

श्री रामरतन जी ने अपने प्रवचन" द्वारा वैदिक ज्ञान को मानव क जनकल्याण के लिए आवश्यक बताते हुए यजुर्वेद के 48 वें अध्याय के मंत्र का ध्यात्वापूर्वक उपस्थित श्रोताओं को स्मृतिस्वर समझाते हुए बताया कि यशोमान तपत्र कल्याणी मा देवति जनेभ्यः अर्थात् वेद पठने

को क्षाय्य अपनी शस्त्र शक्ति से राष्ट्र को वैश्य अपनी धनोपार्जन कला से राष्ट्र को अभाव को शूद्र अपने पावन श्रम से सहयोग देकर कर्त्तव्य भाव से अपने राष्ट्र धर्म का पालन करना सिखाते हैं।

जगन्नीशचन्द्र कसेरा
मन्त्री

महर्षि दयानन्द जन्म स्थान टकारा मे भव्य ऋषि मेला

28 02 2003 से 02 03 2003 नई दिल्ली

आर्य जगत को स्वीकृत करते हुए इन्हें दो सहा हैं कि हर वर्ष की गति अगले वर्ष 2003 में महर्षि दयानंद द्वारा स्थापन जगत का त्रैयिक (महर्षि दयानंद 28/03/2003 से 02/03/2003 को) सम्पूर्ण होना। विश्व की समस्त आर्य समाजों की आर्य समाजों में विश्वास प्रत्यक्षां पुनर्जन्म एवं सम्पूर्ण आर्य जगत् से प्रार्थना है कि वह तिथियाँ जगत् से अद्वितीय रूप से और इन दिनों में को कोई कार्य न हो सके। महर्षि दयानंद जी स्थापित जगत् से सम्पूर्ण प्रार्थना है आपके उद्देश्य और भोजन आदि की सब सुखयुक्तता टकारा की ओर से होगी। टकारा पुनर्जन्म के विषये राजकोट पुनर्जन्म तत्त्व द्वारा विषय जाहज द्वारा निर्दिष्ट भारत से गांधी बलारी हैं और राजकोट और टकारा के बीच 46 मिलोनेट्री की दूरी है।

श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टकारा
आर्य समाज अनाकली मंदिर मार्ग नई दिल्ली 1

शिव में एक दर्द है क्या कोई, वरतें है सुख मैं ते क्या कोई।
 कैसा सीधा अन्धकार है क्या, बिना रिले के मरत है क्या कोई।।
 हिमालय शिव के किसी कान पर है, हृदय में दर्द कभी को ते क्या कोई।
 ये कभी काल सदा के न समझे, कभी न काल पान ते क्या कोई।।
 मुझ तुझे हूँ पान कुरीत है मेरे, मुझ ते समझ का हूँ ते क्या कोई।

कैसीतु नाम प्रणवती 'पुनः'

343 दीपक खाटा पक्की के चानने, नीली चूनी डोलीनी नगना

वे अक्सर कहा करते थे कि मैं आर्य जगत के सभी

विद्वानों के सांगिष्ठ्य में रहा है। मैंने उन्हें बहुत पत्रदीक्षा से देखा है परन्तु मैंने स्वामी धर्मानन्द जी (पूर्व नाम श्री धर्मदेव विद्या मार्तण्ड) जैसा विद्वान् निष्कपट चरित्रवान् एवं निष्काम कर्मयोगी नहीं देखा। मुझे गर्व है कि मैं एक ऐसे महान् विमुक्ति प्राप्तिपथ हूँ।

मैं कहता आँखिन देखी

आर्य जगत में प्रकाण्ड विद्वानों की कमी नहीं है। अपने भाषणों में सैकड़ों वेद मंत्रों और सस्कृत ग्रन्थों के उद्धरण देते हैं। श्रोताओं को इन उद्धरणों से कुछ मतलब नहीं क्योंकि ९९ प्रतिशत श्रोता सस्कृत जानते ही नहीं हैं। अतः आर्य विद्वानों को वेद मंत्रों और श्लोकों

हानि लाभ को समझे अन्वयायकरी बलवान् से भी न हरे और धर्मलब्ध निर्मल से भी डरता रहे। इतना ही नहीं किन्तु अपने सर्व सामर्थ्य से धर्मलब्धकों की चाहें से महा अन्धकार निर्मल और गुणरहित कालों में हों उनकी छाँटा उन्मत्ति प्रियाचरण और अकर्मों चाहे चक्रवर्ती सनाथ महाबलवान् और गुणवान् भी हो तथापि उसका नष्ट अवगति और अधिसाधन सदा किया करें अवश्य जल एक हो सके चक्र तर्क अन्वयायकरियों के बल की हानि और न्यायकारियों के बल की उन्मत्ति सत्यता किया करें। इस काम में चाहे उसको किन्तु ही वाक्य दुःख प्राप्त हो, चाहे प्राण भी भले ही चले जायें परन्तु इस मनुष्यपनकप धर्म से कृष्ण कभी न हों।



श्री सत्यव्रत सामवेदी जी स्वामी जी को राजस्थानी साक्षात् पहचानते



स्वामी जी श्री सत्यव्रत सामवेदी जी के साथ

के अर्थ बताते पड़ते हैं। भाषण का आधा समय इनके अर्थ बताने में ही व्यतीत हो जाता है।

स्वामी आत्मबोध जी आर्य जगत के एक मात्र सत्यारी थे जो पाण्डित्य प्रदर्शन के लिये वेद मंत्र एवं श्लोकों के उद्धरणों से परहेज करते थे। मैंने बड़े-बड़े विद्वानों को भाषण से पहले दिन भर पुस्तकों को पढ़ कर भाषण की तैयारी करते देखा है परन्तु मैंने आज तक स्वामी आत्मबोध जी को कोई पुस्तक पढ़ते नहीं देखा। उनके भाषण को सुनकर मुझे हमेशा सत चिंतनगति कबीर का निम्न पद याद आने लगता है—

तेरा मेरा मनुआ कैसे एक होई रे

तू कहता कायद की देखी मैं कहता आँखिन देखी

मैं कहता सूरदास हारी तू राख्यो चरबाय रे

राम चरित मानस कंठस्थ परन्तु दीवाने सत्यार्थ प्रकाश के

स्वामी जी को राम चरित मानस कंठस्थ थी। वाराणसी

जिनकी जन्म भूमि हो उनका राम चरित मानस के प्रति अनुपम होना स्वाभाविक है। कभी-कभी वे राम चरित मानस की चौपाइयों और दोहों की झर्री लगा देते थे जिनमें सुनकर श्रोता भावविभोर हो उठते परन्तु स्वामी जी दोहे और चौपाई आर्य समाज के मन्तव्यों को पुष्ट करने के लिये ही सुनाते थे। वे अवसर कहा करते थे कि श्रोताओं को खुश करने के लिये मैं दयानन्द के साथ विश्वासघात नहीं कर सकता। सत्ता का मार्ग दिखाने वाली तो संसार में केवल एक ही पुस्तक है—सत्यार्थ प्रकाश। वे मजाक में यह भी कहते थे कि मैं वेद का नहीं सत्यार्थ प्रकाश का प्रचारक हूँ। सत्यार्थ प्रकाश के बिना वेद समझ ही नहीं आ सकते। जो सत्यार्थ प्रकाश नहीं जानता वह वेद का प्रचार ही नहीं कर सकता। उनकी मान्यता थी कि संसार में यदि कानि आयेगी तो सत्यार्थ प्रकाश के गा यान से। वे सत्यार्थ प्रकाश को मानव जाति के कल्याण के लिये विश्व का सर्व श्रेष्ठ दान मानते थे। उन्हें सत्यार्थ प्रकाश के सैकड़ों उद्धरण कंठस्थ थे और श्रोताओं को भी उन उद्धरणों को बोलने के लिये प्रेरित करते। सत्यार्थ प्रकाश का निम्नलिखित उद्धरण उन्हें बहुत प्रिय था जिसे वे श्रोताओं को बोलने के लिये कहते थे—

मनुष्य उसी को कहना जो कि मनमौली टोकर स्वामयत्त अर्थों के सुख-दुःख और

उनकी मान्यता थी कि महर्षि के इत्थी विचार से ही विश्व में कानि हो सकता है और भक्त मत्तान्तरो के विवाद समाप्त हो सकते हैं।

स्वामी जी श्रोताओं को साक्ष्य करते थे कि मैं सस्कृत नहीं हूँ। हिन्दी भी नहीं जानता हूँ। मैं तो केवल उर्दू और अंग्रेजी पढ़ा हूँ। मुझे अंग्रेजी और उर्दू में भाषण देने में ही सुविधा होती है। परन्तु वे सब वे मजाकवाक्य कहते थे। हिन्दी पर भी उनका जबरदस्त अधिकार था। पाण्डित्य प्रदर्शन से वे दूर रहते थे। उनकी भाषा मरिचक को नहीं दिल् को सूती थी। कबीर की भीति भाषा उनकी चेरी थी। जैसे वे हिन्दी के डिक्टर हों। मानो कि हिन्दी उनका हुकम बजाने के लिये हाथ जोड़कर खड़ी हो।

स्वामी जी एक आग थे

इतीलिये अविव्रता को वे जलाकर मल्ल कर देते थे। यदि कोई मक्ता सत्यार्थ प्रकाश के मन्तव्यों के विरुद्ध बोलता दिखाई देता तो वे उन्हें भरी सभा में फटकार देते थे। इससे अनेक लोग उनसे कट भी हो जाते थे। कट लोग उन्हें आर्य ऋषि के स्थान पर आर्यविष्णु कह कर अपनी पद्धत निरुद्ध करते थे।

दानवीर एवं याज्ञिक स्वामी जी

स्वामी जी का जीवन पूर्णतः यज्ञमय था। उन्हें जो कुछ भी दक्षिण में मिलता उसे वे आर्य समाज के प्रचार-प्रसार एवं जनहित के लिये दान में दे देते थे। अजमेर में निवास की कोठी जहाँ महर्षि का निर्माण हुआ था आर्य जगत का सर्वाधिक महत्वपूर्ण दर्शनार्थ स्मारक बन गया है। स्वामी जी उसके अग्राह्य थे और दक्षिण में प्राप्त कालों रुपये उन्होंने आर्य समाज निगम की कोठी को दान में दे दिये।

वे निर्मलता की प्रतिमुद्रि थे। कोई लाग-लपेट नहीं। जो सत्त सत्ता उन्हें कह दिया। किसी की गारजगी की वे परवाह नहीं करते थे। जीवन की बुद्धि पर वे सबसे अधिक बल देते थे। सत्यपथ पर चलने के लिये प्रेरित करने हुए वे श्रोताओं को कहते थे—

निर्मल धनवान् से डरता हूँ।

निर्मल बलवान् से डरता हूँ।

नृत्त विद्वान् से डरता हूँ।

किन्तु चरित्रवान् से मैं तीनों डरते हूँ।

महर्षि दयानन्द के अन्धकार भक्त सत्यार्थ प्रकाश के अक्षरिण प्रवक्तृ निर्भीकता की प्रतिमुद्रि सत्यपथ के दृढ़ अनुयायी अनेककं एवं मर्यादाहीन जगती बरोपकरी प्रियाय के कभी दूकमकर स्वामी आत्मबोध जी को हमका सदा सत्त नमः।



दाए से बाए श्री देवेन्द्र स्वामी स्वामी आत्मबोध जी ब्रह्मेन्द्र नारायण साहनी एवं श्री बलदेवराज आर्य

आर्य वीर दल, महर्षि दयानन्द स्मृति भवन सतानाड़ा, जोधपुर

आर्य वीर दल जोधपुर ने विशाल श्रावणी पर्व मनाया

जोधपुर 16 सितम्बर। आर्य वीर दल जोधपुर द्वारा 14 सितम्बर को महर्षि दयानन्द स्मृति भवन सतानाड़ा के प्रांगण में विशाल श्रावणी पर्व मनाया गया जिसमें जोधपुर के अलावा जयपुर पाली शिवगंज तुमैपुर सिरौही आदि स्थानों के आर्य वीर दल के प्रतिनिधियों ने भाग लिया।

कार्यक्रम के अनुसार यज्ञ आर्य समाज विश्वकर्मा नगर द्वारा सम्पन्न करवाया गया। आर्य वीर दल जोधपुर द्वारा यज्ञ में 6000 आहुतियों दी गई।

भजन के कार्यक्रम की प्रस्तुति आर्य समाज जोधपुर ने बहुत सुन्दर तरीके से की जिसमें दो नम्हे बच्चों ने सुन्दर तरीके से ईश प्रार्थना प्रस्तुत कर सबको भावविभोर कर दिया। आर्य समाज जोधपुर सतानाड़ा की चरित्र उपा प्रधान श्रीमती कमला जी ने भजन प्रस्तुत किया। आर्य वीर दल जोधपुर के सचालक नारायण सिंह आर्य ने वीर रस का गीत 'मेरा पप दे बसती सोला' की प्रस्तुति कर वातावरण को वीर रस से ओत प्रोत कर दिया।

आर्य वीर दल राजस्थान के अध्यक्ष र

आर्य ने महर्षि दयानन्द द्वारा दिये सन्देश को मानवता के लिये कल्याणकारी बताया।

समारोह के मुख्य अतिथि सार्वदेशिक आर्य प्रतिनिधि सभा नई दिल्ली के मंत्री भानुजी श्री सत्यव्रत सामदेवी ने अपने उद्बोधन में राम और कृष्ण के चरित्र की सच्ची व्याख्या

करते हुए उपस्थित मातृवाचित का आह्वान किया कि वे अपने बच्चों को चरित्र निर्माण के लिये आर्य वीर दल में भेजें इसी में राष्ट्र व मानवता का हित है।

समारोह का प्रमुख आकर्षण आर्य वीर दल जोधपुर के अध्यक्ष श्री गणपतिसिंह पवार द्वारा विशिष्ट उपलब्धियों एवं विशेष सामाजिक कार्य हनु श्रीमान नारायण सिंह जी आर्य सचालक आर्य वीर दल जोधपुर श्रीमान नारायण सिंह जी खीची को अन्तर्राष्ट्रीय स्तर पर बौक्सिंग के टीम मैनेजर श्रीमान दलपतसिंह जी आर्य जालोर को एशियन कुश्ती के टीम मैनेजर श्री जगदीश प्रसाद आर्य एव श्री हेमसिंह आर्य को पर्यावरण के क्षेत्र में उत्कृष्टतम उपलब्धियों के लिए सम्मान पत्र देकर मुख्य अतिथि सत्यव्रत जी सामदेवी से सम्मानित कराया। समारोह में पधारें सभी वरिष्ठ नागरिकों का परिचय भी कराया गया।

समारोह के अन्तिम चरण में नगर विकास न्यास के अध्यक्ष श्री राजेन्द्र सिंह सोलंकी जोधपुर शहर विधायक श्री जुगल जी काबरा श्री रामेश्वर जी दाधीच नगर विकास न्यास के अध्यक्ष श्री राजेन्द्रसिंह जी सोलंकी और श्री देवेन्द्र जी त्यागी भावणी पर्व के समापन के बाद बैठे

किया गया। तत्पश्चात सभी ने प्रीति भोज का आनन्द लिया। आर्य वीर दल जोधपुर की ओर से अध्यक्ष गणपतिसिंह पवार ने सभी को भव्यवादा झांझित किया।



श्री रामसिंह जी आर्य शहर विधायक श्री जुगल जी काबरा श्री गणपतिसिंह जी चौहान श्री सत्यव्रत जी सामदेवी श्री रामेश्वर जी दाधीच नगर विकास न्यास के अध्यक्ष श्री राजेन्द्रसिंह जी सोलंकी और श्री देवेन्द्र जी त्यागी भावणी पर्व के समापन के बाद बैठे



आर्य वीर दल जोधपुर के अध्यक्ष श्री गणपत सिंह पवार उत्कृष्ट उपलब्धियों सामाजिक सेवाओं और पर्यावरण रक्षण के सराहनीय कार्यों के लिये सम्मान करने की घोषणा करते हुए



राजस्थान एग्ज्योर बक्सिंग एसोसिएशन के अध्यक्ष श्री नारायणसिंह जी खीची को अन्तर्राष्ट्रीय मुक्केबाजी प्रतियोगिता में सेवार देने के उपलक्ष्य में सम्मानित करते श्री सत्यव्रत सामदेवी एवं श्री रामेश्वर जी दाधीच

आर्य वीर दल जोधपुर के सम्मानित आर्य वीरों का संक्षिप्त परिचय



श्री नारायण सिंह खीची— पुत्र श्री जसवन्त सिंह जी खीची ने अन्तर्राष्ट्रीय मुक्केबाजी प्रतियोगिताओं में फारा का प्रतिनिधित्व किया। वर्ष 1980 में विश्वकर्म मुक्केबाजी प्रतियोगिता में तैलुननीली अतिथि एव वर्ष 1989 में 17वीं एशियन जुनियर मुक्केबाजी प्रतियोगिता बैकनग



श्री हेमसिंह आर्य— पुत्र श्री किशन जी परिहार को पर्यावरण एवं सामाजिक क्षेत्र में उत्कृष्टतम सेवाएं प्रदान करने हेतु भावणी पर्व दिनांक 14 सितम्बर 2002 के अवसर



श्री नारायण सिंह आर्य— सचालक आर्य वीर दल जोधपुर पुत्र श्री सुनीलसिंह जी को सन 2001-2002 में विशिष्ट सामाजिक सेवाओं हेतु भावणी पर्व दिनांक 14 सितम्बर 2002 के अवसर पर महर्षि दयानन्द स्मृति भवन जोधपुर में प्रकाशित पत्र देकर सम्मानित किया गया।

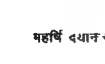


श्री दलपत सिंह आर्य— पुत्र श्री रामसिंह जी जालोर को वर्ष 2000 की प्रथम एशियन केरिक्ट कुश्ती प्रतियोगिता ईरान में भारतीय टीम के मैनेजर के रूप में

भागत का प्रतिनिधित्व करने हेतु भावणी पर्व दिनांक 14 सितम्बर 2002 के अवसर पर महर्षि दयानन्द स्मृति भवन जोधपुर में प्रकाशित पत्र देकर सम्मानित किया गया।



श्री जगदीश प्रसाद आर्य— पुत्र श्री बिहारी दास जी जोधपुर को पर्यावरण एवं मुक्केबाजी में उत्कृष्ट सेवाएं प्रदान करने हेतु भावणी पर्व दिनांक 14 सितम्बर 2002 के अवसर पर महर्षि दयानन्द स्मृति भवन जोधपुर में प्रकाशित पत्र देकर सम्मानित किया गया।



गणपत सिंह पवार अध्यक्ष आर्य वीर दल महर्षि दयानन्द स्मृति भवन सतानाड़ा जोधपुर

आर्य समाज, हिरण मगरी, उदयपुर

वेद प्रचार सप्ताह सम्पन्न

उदयपुर का कबन से प्रारम्भ इस अभियान का समापन कबन जमनापट्टी 31 अगस्त को हुआ। इस सम्पूर्ण वेद प्रचार अभियान के मुख्य वक्ता उपदेशक श्री कुवर आनन्द सुगन सिंह थे। हाथस से प्यारे आचार्य पूरणलाल शारंगी 'पछी' के सुगुनर भजनोपदेश हुए। आर्य समाज समा भवन के अलावा परिवारों में यज्ञ उपदेश के आयोजन ऐसे गये जिनमें सत्य श्री अरविन्द त्वाणी अनन्त देव शर्मा श्याम सुन्दर मेहरा श्री बलराम चौहान प्रधान जमनालाल गीतम प्रमुख थे।

वेद प्रचार अभियान के उपदेश आनन्द सुगन सिंह ने ईश्वर का स्वप्न व उपासना विभिन्न पक्ष समुदाय व वैदिक कर्म में परम्परा तुलनात्मक आध्यात्मिक वेद अनेक क्षणों व्यवस्था महर्षि ब्रह्मलोक का जीवन व सत्यार्थ प्रकाश राष्ट्रीय स्वतंत्रता आन्दोलन व आर्य समाज आदि विषयों पर विस्तार से प्रकाश डाला। भजनोंपदेश में श्री कुण्डलस्थ शारंगी पछी के सत्य इन्द्रदेव वीरुच ने भी भजन प्रस्तुत किए।

कमपन समारोह के मुख्य वक्ता डॉ. अशोक आर्य ने अपने व्याख्यान में कहा ईश्वर साविधानन्द स्वकृप निराकार सर्वशक्तिमान न्यायकारी दयालु अजन्मा निर्विकार अनादि अनुग्रह सर्वकार सत्यार्थक अजर अमर पवित्र और सृष्टिकर्ता हैं। हमें उसी परमपिता की उपासना करनी चाहिए। हमारे महापुरुष श्री रामचन्द्र जी की कृष्णध्वज जी भी उसी निराकार ब्रह्मा की उपासना करते थे।

डॉ. अशोक आर्य ने कहा कि हम महापुरुषों को ईश्वर का अवतारी बता उनके जीवन से प्रेरणा नहीं लेते हैं क्योंकि वेह देते हैं ऐसा काम हम नहीं कर सकते। लोकेश्वर काम करने वाले महापुरुषों को हम ईश्वर मान लेते हैं और कई तरह के भयंकरा उनसे साध्य जोह देते हैं। बुद्धिमान इसे अतिरिच्योति मान विश्वास नहीं करते और उक्त महापुरुष के प्रति उनकी श्रद्धा कम हो जाती है। ऐसे लोकेश्वर कार्य करने वाले महापुरुष ईश्वर के समान इश्वर्य के कुछ गुण धारण कर लेते हैं पर सम्पूर्ण ईश्वर नहीं हो सकते। ऐसा सार्वसामान एक ही परमपिता है जो कभी जन्म नहीं लेता कभी नहीं मरता। वह अजर-अमर

अविनाशी है सर्वदेवी है। योगीराज श्री कृष्ण के पुणों की चर्चा करते हुए डॉ. आर्य ने उनके भावव्याख्या निर्लोभिता निर्गोता सुदृगीरिज्ञ नैत्रय भाव ब्रह्मभारत ईश्वर प्राणिमात्र आदि पर विस्तार से प्रकाश डाला।

समारोह की मुख्य अतिथि नगर परिषद् की पूर्ण समापति श्रीमती किरण माहेश्वरी ने कहा कि सत्य को जाने बगैर श्रद्धा उत्पन्न नहीं होती। आर्य समाज जैसा मध्य तर्क संगत बात कहता है। हमने यू.टी. कही बात पर विश्वास हो तो जाता है किन्तु अधिक समय तक चल नहीं सकता किन्तु तर्क संगत कही बात जीवन पर्यन्त माननीय होती है। आपने भी पूर्व वक्ता की बात को स्वीकारते हुए कहा कि सत्य ने महापुरुषों को ईश्वर अवतारी बताना हमारी भूल ही है। ईश्वर कही भविर भण्डार गुच्छारे ने नहीं है। ईश्वर तो सर्वत्र वीजुह है। हमारे अन्दर ईश्वर है। हमारे अन्दर ईश्वर को जगाने पहचानने की आवश्यकता है।

वक्ता डॉ. कुवर आनन्द सुगनसिंह ने कहा कि सृष्टि में धर्म सत्कृति अनन्त समय से प्रवाहमान है। देशकाल परिस्थितियों के अनुसार महापुरुषों ने अपने विवेक के अनुसार इनकी व्याख्याएँ की हैं। डॉ. सुगन ने श्री कृष्ण जी के लोक प्रसिद्ध स्वकृपों की विस्तार से चर्चा करते हुए कहा कि वास्तव में श्री कृष्ण जी महाराज का स्वकृप ही लोगों ने बदल दिया। आपने कहा कि किसी के चरित्र को हतना कलकित मत करो कि लोग धृष्टा करने लग जाते।

श्री पूरणलाल शारंगी 'पछी' ने सुगुनर भजन प्रस्तुत किये। कार्यक्रम की अध्यक्ष डॉ. अजित गुप्ता ने भी अपने विचार व्यक्त किये। इससे पूर्व देव यज्ञ सम्पन्न हुआ यज्ञ के मुख्य यजमान श्री विनोद सुंद श्री एस.एस. कोठारी की आग्रह कुमार आर्य श्री श्याम विहारी मोह थे। यज्ञ के ब्रह्मण पणालाल अरोडा थे कार्यक्रम का संचालन आर्य समाज के मंत्री गिरिश जोशी ने किया। अन्त में प्रधान जमनालाल गीतम ने धन्यवाद दिया।

प्रस्तुति

राम दयाल आर्य समाज
हिरण मगरी उदयपुर

राष्ट्रउत्थान यज्ञ समिति

पाकपुरा आर्य समाज पञ्चायत विकास समिति जोधपुर

जोधपुर 8 सितम्बर। महर्षि दयानन्द स्मृति रातानाडा जोधपुर में समस्त आर्य वीर दल जोधपुर की विभिन्न शाखाओं तथा आर्य समाज इकाईयों के पदाधिकारियों प्रतिनिधियों एवं कार्यकर्तियों की बैठक श्री नारायण सिंह आर्य प्रधान संचालक एवं राष्ट्र उत्थान यज्ञ समिति के मुख्य समन्वयक आर्य वीर दल जोधपुर की अध्यक्षता में आयोजित की गई। आर्य प्रतिनिधि तथा राजस्थान के उप प्रधान श्री रामसिंह आर्य सभा में विशिष्ट अतिथि रहे।

अध्यक्षाता करते हुए श्री नारायण सिंह ने पाकपुरा में हुई पिछली सभा के पाकपुरा में आयोजित होने वाले 'राष्ट्र उत्थान यज्ञ' एवं राष्ट्र उत्थान यज्ञ समिति के निर्णय की पुष्टि करते हुए आर्य प्रतिनिधि तथा राजस्थान के उप प्रधान श्री रामसिंह आर्य की सम्मति से समिति के संयोजक पदाधिकारी एवं सदस्यों की घोषणा निम्न प्रकार से की—

'राष्ट्र उत्थान यज्ञ समिति जोधपुर' के संयोजक श्री मय लाल नाग तथा समिति के कोषाध्यक्ष श्री यशपाल मेहता एवं सचिव श्री पूरणसिंह सोनाव एवं साथ ही समिति के अन्य प्रमुख सदस्यों में श्रीमती कमला आर्य श्रीमती इन्दुबाला गौड स्वर्गी गणपतसिंह मयार सेवामण जागिह दिलीपसिंह पवार अजीतसिंह महलोत चांदमल आर्य नारायणसिंह जीधी दयालसिंह आर्य श्यामसिंह साखला हनुमान प्रसाद गौड जगदीश आर्य कम्पले साखला गोपाल आर्य गजोहल हेमसिंह परिहार जितेंद्र सिंह मयारलाल आर्य लक्ष्मणसिंह दलपतसिंह—जालौर ओम आर्य कालना हाजी अजीत सिंह भाईनुदुधन मनसला नारायण गुर्जर तथा सदस्य कुर्बान सिंह साहित पाकपुरा आर्य समाज एवं पञ्चायत विकास समिति के सभी कार्यकारिणी सदस्य मनोनीत किये जाते हैं। राष्ट्र उत्थान यज्ञ समिति के संयोजक की नियुक्त में बताया कि समस्त जोधपुर की आर्य समाज इकाईयों तथा आर्य वीर दल शाखाओं द्वारा दिनांक 14.09.2002 को हर वर्ष की भाति श्रावणी पर्व 'राष्ट्र उत्थान' के कार्यक्रम के साथ सम्पूर्ण होना।

राष्ट्र उत्थान यज्ञ का कार्यक्रम 10 अक्टूबर 2002 को आयोजित होगा जिसमें स्थानी अग्निवेश जी प्रमुख अतिथि होंगे।

नारायणसिंह आर्य
संचालक आर्य वीरदल जोधपुर एवं
मुख्य समन्वयक राष्ट्र उत्थान यज्ञ समिति

हिन्दी दिवस के अवसर पर वैदिक कन्या स्नातकोत्तर महाविद्यालय आर्यसमाज, आदर्श नगर, जयपुर में विभिन्न प्रतियोगिताएं सम्पन्न

जयपुर 14 सितम्बर। हिन्दी दिवस के अवसर पर वैदिक कन्या स्नातकोत्तर महाविद्यालय में काद दिवस प्रारंभिक आयोजना विभिन्न कक्षा की लेखन स्पर्धा का आयोजन तथा नाच प्रतियोगिता का आयोजन किया गया जिसमें मुख्य वक्ता के कप्त म बोलेते हुए डॉ. वीरेश्वरसिंह ने कहा कि हिन्दी भाषा में न केवल साहित्यिक का भाव है अपितु सहृदय होने के कारण यह अपना प्रभाव सिद्ध कर चुकी है। यद्यपि मध्यमोच्चस्तर तकनीकी युगीनी के कारण इसे परीक्षा के दौर से गुजरना पड़ रहा है लेकिन समय सिद्ध करेगा कि हिन्दी इसमें भी स्वाम है।

विशिष्ट अतिथि महाविद्यालय के व्यवस्थापक श्री राजकुमार शाहनी ने हिन्दी भाषा के प्रचार-प्रसार में स्थानी दयानन्द सरस्वती के योगदान का उल्लेख किया। उन्होंने कहा कि पहले मात्र भाषा फिर आकलना को दर्शा दिया जाना चाहिए।

अध्यक्षीय भाषण करते हुए डॉ. आर.सी. निम्न ने कहा कि दक्षिण एशिया में भी हिन्दी भाषा की प्रतियोगिता है। हिन्दी भाषा की परीक्षा से निकलकर विभिन्न पक्षों में अपना परचम फहरा चुकी है। महाविद्यालय की प्राचार्य डॉ. आशा कर्मा ने अतिथियों का स्वागत किया।

हिन्दी विभाग की विनम्रता डॉ. प्रमिला मिश्रा ने महाविद्यालय में आयोजित विभिन्न प्रतियोगिताओं की जानकारी दी। अध्यक्ष

का संचालन डॉ. रीता दावीच ने किया तथा डॉ. रेणु तायल ने धन्यवाद प्रार्थना किया।

प्रतियोगिताओं में विजयी छात्राएं निम्न प्रकार हैं—

निबन्ध प्रतियोगिता—डु. शिवा प्रजापति डु. माया रावत डु. हेमलता वर्मा डु. अजलि छात्रका

कहानी प्रतियोगिता—डु. हेमलता वर्मा डु. अजलि छात्रका डु. पूष्पा स्तुति चौहान।

प्रश्नोत्तरी—कुलत रायड, डु. ज्योति गौयल डु. मेधा भटनागर।

व्याख्यान—डु. माया रावत डु. नम्रता शर्मा अजलि छात्रका।

स्वरचित काव्यापाठ—डु. हेमलता वर्मा डु. शिवा प्रजापति डु. श्रिया कर्मा।

वाद-विवाद—डु. पूष्पा स्तुति डु. शिवा कर्मा डु. प्रगति जोधपुर।

आशुभाषण—डु. शिवा प्रजापति डु. हेमलता वर्मा डु. पूष्पा स्तुति रत्नोत्तम (नाथ) डु. कबन सैनी डु. विजय माहेश्वरी।

डॉ. प्रमिला मिश्रा
समन्वयिका
हिन्दी विभाग/महाविद्यालय

वैदिक कन्या स्नातकोत्तर महाविद्यालय

दर्द

छत्र गहर हर ओर अन्धेरा,
कोहर घना हो गया,
अपने-अपने सुख दुःख सहेते,
राखर सरार से गया।

लिफ्ट गई रेंडो से परछायायें,
पछी ना छिपे खोसलेंगे से,
सिहर गई रेंडो की परछियायें,
कुछ-कुछ, मौसम से हर
एक नजारा खो गया।

बल्लरी रही दुखियों कीदर,
बादलों से अटखेलियायें,
तेल छब दीवारों से टक-टाक-टाक
पूछारी रही गये रेंडोयें।

अंधेर जैसा कुछ कक्षों को सलजकर,
मल्लो की चिमरी गया,
बल्लर राखा कोई बल्लर,
खोया गुमसुम हुए चहार।

सूनी अंधेरी सड़क पर
गुमारी रही केवल धराधार
पैडल के लहराये लगे,
ये दर्द ये कोई कभी ये नग।

डॉ. अनुपम तिलप

34 राम नगर लोकनाथ जयपुर-6

महर्षि दयानन्द : वैदिक धर्म का विशुद्ध रूप का पुनरुत्थान

महर्षि दयानन्द सरस्वती का प्रथम कार्य वैदिक धर्म के विशुद्ध रूप के पुनरुत्थान के सम्बन्ध में है। उनका विशारद था कि सत्य स्नातान वैदिक धर्म के अनुसार ईश्वर एक है जो विश्व की सर्वोच्च सत्ता है उसका न तो कोई आकार होता है न कोई रूप अतः उसकी मूर्ति ही बर्णन जा सकती।

ईश्वर कभी अवतार नहीं लेता। वह सर्वव्यापक है अतः किसी भी कार्य के संपादन के लिए उस मानव या अन्य जीव का शरीर वाहक करने की आवश्यकता नहीं होती। राम और कृष्ण आदि महापुरुष थे पर न वे ईश्वर थे न ही ईश्वर के अवतार।

आचार्य ईश्वर से मिलते हैं। तब अन्ध विज्ञान है ईश्वर या परमात्मा जीव या आत्म और प्रकृति। वे क्रैदान से सम्पूर्ण के थे और अद्वैतवाद को वेदान्तकूल व मुक्ति साधन नहीं मानते थे।

उनका मतलब था कि मृत्यु के साथ आत्मा का अन्त नहीं होता अन्त शरीर का होता है। पुनर्जन्म शरीर को लेना न ही आत्मा नया शरीर ग्रहण करती है और इस प्रकार उसका पुनर्जन्म होता है। मृत व्यक्ति के लिए पिछड़ाया पिछड़े का भ्रातृ और तर्पण करना वेदव्यतः नहीं है। भीम सदी सदा ही हिन्दुओं का मूल रूप था महर्षि की दृष्टि में वह सत्य स्नातान वैदिक धर्म को अनुसृत नहीं था। उनके बहुत से मत्स्या पूजा विधि तथा अनुष्ठान जो न केवल वेद विरुद्ध थे बल्कि मनुष्यों के वैज्ञानिक तथा सामाजिक हित में बाध भी थे।

महर्षि ने आर्य धर्म की सभ विविधियों के विरुद्ध आवाज उठाई और उसके सत्य सवरूप को प्रतिपादित किया। वह एक अत्यन्त महत्वपूर्ण कार्य था और महर्षि का अमूर्त कर्मत्व व कार्यकलाप इसी कार्य के साथ सम्बन्ध रखता है।

सत्य स्नातान वैदिक धर्म अत्यन्त प्राचीन है। सत्य-सत्य पर उसमें

अनेक प्रकार की विकृतियों का प्रचुरता होती रही है। अनेक चतुरांगों ने उन्हें दूर करने का प्रयास भी किया है। महाभारत युद्ध के पश्चात् जब यज्ञों में पशु बलि दी जाने लगी तो राजा यशु वैशंपरिचर के समय में अनेक ऋषियों ने उसके विरुद्ध आवाज उठाई और यज्ञिक क्रम-काण्ड की तुलना में भक्तिकार्य के आश्रय को उत्कृष्ट रूप में प्रतिपादित किया।

ब्राह्मण क्षत्रिय आदि चातुर्वर्ण्य का आधार जब गुरु-धर्म के स्थान पर जा म को माना जाने लगा उसके कारण समाज में ऊँच-नीच का भेदभाव विकसित होना प्रारम्भ हुआ जब योगिराज कृष्ण ने 'गण' कर्म के अनुसार ही चातुर्वर्ण्य के निर्धारण की योजना की और यज्ञादि की मुक्तिस्मरण व्यवस्था की।

कृष्ण ने वैदिक धर्म की विकृतियों को दूर कर सच्चे आर्य धर्म की पुनः स्थापना का प्रयत्न किया। वे इस प्रयास में सफल भी हुए परन्तु बाद में यज्ञों में बलि दी जाने लगी।

गौतम बुद्ध ने इन विकृतियों को दूर करने का प्रयास किया। फिर से यज्ञादि अनुष्ठान शुरू हुए पर इस समय जो वैदिक धर्म प्रचलित हुआ वह विशुद्ध वैदिक धर्म से भिन्न था। मुक्तिपूजा अर्थात् वाद-देवी-देवताओं पर विश्वास जैसे न जाने किसने ही ऐसे तत्व दमने सामर्थ्य हुए जो वास्तविक वैदिक धर्म नहीं थे। बाद में अनेक धर्माचार्यों विद्वानों तथा सत्यासिधियों ने वैदिक धर्म की शक्ति का सर्वनाश करने विद्वान्ता की प्रविष्टिपान करने तथा उसके प्रसार का प्रयास किया। उनकी के प्रयत्नों का परिणाम था कि भारत से ऐसे अनेक सम्प्रदायों का लोप हो गया जो वेदों की प्रागमणिकता को नहीं मानते थे और जो नृपति के कर्ता पालक सहर्षा के रूप में ईश्वर की सत्ता को नहीं स्वीकारते थे। भारत में शक्रर तमाजुज्ज्वल वल्लभ आचार्य ने वैदिक धर्म का सर्वान का प्रयास

किया पर उन्होंने आर्य धर्म के जिस रूप का निरूपण किया वह सत्य स्नातान वैदिक धर्म से अनेक अर्थों में प्रतिभूत था। इन आचार्यों के न दार्शनिक भ्रमत्व वैदिक धर्म के अनुसार वे और न पूजा विधि। परिणाम यह हुआ कि इस देश के धर्म की विकृति ने पूर्ण ही होती गयी और उसका निराकरण नहीं किया जा सका। नव्य युग में सत महात्मा श्री असफल रहे।

उन्नीसवीं सदी के पूर्वार्ध में नवीन पाश्चात्य शिक्षा से प्रभावित राजा राम मोहन राम सदाशु सुधारकों ने हिन्दु धर्म की सामाजिक दुहाइयों को दूर करने का अवसर प्रयत्न किया पर इस धर्म के वास्तविक व विशुद्ध रूप को प्रस्तुत करने पर उन्होंने ध्यान नहीं दिया। इसी कारण उन द्वारा संचालित आन्दोलन जनता के बहुत छोटे से भाग को प्रभावित कर सके।

वैदिक धर्म के वास्तविक व विशुद्ध रूप को पुनः स्थापित करने का प्रयत्न भारत के सुदीर्घ इतिहास में योगिराज कृष्ण के पश्चात् केवल महर्षि दयानन्द सरस्वती द्वारा ही किया गया। ऐतिहासिक दृष्टि से यह बात अत्यन्त महत्वपूर्ण है और यही महर्षि के सच्चे बन्धु हैं। महर्षि दयानन्द का मतलब है कि विश्व की सर्वोच्च शक्ति केवल एक ईश्वर है जिसका सर्वोच्च नाम ओम् है। इन्द्र वरुण अग्नि वायु आदि जो बहुत से नाम वेदों में आते हैं जिनसे विभिन्न देवताओं के नाम से जानते हैं सब एक ही ईश्वर के विभिन्न नाम हैं। महर्षि दयानन्द सरस्वती ने जिस ढंग से एकेश्वरवाद का प्रतिपादन किया है उन्नीसवीं सदी के हिन्दुओं में प्रचलित धार्मिक भ्रमत्वों को लिए एक नवी बात थी।

प्रेषक-

प्रतिभा मिश्रा विभागाध्यक्ष
हिन्दी विभाग वैदिक कथा
स्नातकोत्तर महाविद्यालय
राजाधारा जयपुर

आर्य समाज

महर्षि दयानन्द जार्न, बीकानेर-334005

श्रावणी एवं श्रीकृष्ण जन्माष्टमी एवं तथा दस दिवसीय वेद प्रचार का सफल आयोजन

इस बार आर्य समाज महर्षि दयानन्द धर्म बीकानेर द्वारा दस दिवसीय वेद प्रचार का शुभारम्भ श्रावणी एवं के रूप में दिनांक 22.08.2002 की प्रातः से हुआ तथा पूर्णाहुति श्रीकृष्ण जन्माष्टमी एवं मन्त्रो हुये हुए हैं। इस दौरान दस दिवसीय वेद प्रचार के अन्तर्गत आर्य परिवारों में वसंत वेदी की विशेष मन्त्रो की आयुर्विषय से ज्ञान तथा उत्सकरण सोनी उपपाध्याय तथा ब्रह्मचारी सोनीदेव की परिश्रम में हुआ। इसमें उदककण व्यास उपस्थान का विशेष सहयोग रहा। महर्षि कपिल आर्य गुरुकुल श्री कोलायत बीकानेर के आचार्य एवं



श्री विद्य कुमार जी शस्त्री आचार्य कपिल आर्य गुरुकुल सम्मोहित करते हुए एव अग्रिम पक्षित में प्रभावित कर रहे।

मूर्त्यु विद्वान श्री शिवकुमार शस्त्री के विद्वत्तापूर्ण वैदिक प्रवचन प्रतिदिन हुए। श्री आनन्दपुरी वामनप्रस्थी की भी प्रवचन हुए एव दिनांक 25 से 31 अगस्त 2002 तक श्री भवण कुमार भगवतोपदेशक (तिरुसा हरिवासा वसंतो के) ईश्वर भक्ति एवं समाजोत्थान पर भजनों ने उनकी विनोदपूर्ण शैली के कारण श्रोताओं का ध्यान आकर्षित किया। समय समय पर भगवतोपदेशक श्री राम गोपाल लाडूर प्रसाद बलवीर सिंह ही जेठवार श्री कृष्ण लाल प्रकाश मंत्री फूल धनु ब्रह्मचारी विक्रमाचार्य आदि के भजनों से श्रोतागण भावविभोर होते रहे। दिनांक 27.08.2002 को केन्द्रीय कारागार बीकानेर ने वेद प्रचार का आयोजन विशेष महत्वपूर्ण रहा। कर्म फल तथा वैदिक व्यवस्था पर श्री शस्त्री के विद्वत्तापूर्ण प्रवचन को बन्दीगृहों में ध्वनित होने में ध्यानपूर्वक सना तथा ब्रह्मचर्यम किया और वक्ता सम्मान भी हुआ। ध्वनित होने के पछले 3-4 वर्षों से लगातार प्रत्येक भगवत्प्रचार को कारागार में ब्रह्म प्रचारमन्त्री श्री कृष्ण लाल तथा उपप्रधान श्री रामेश्वर लाल आर्य के देखरेख में हो रहा था।

उत्तम कार्यक्रम का सफल आयोजन प्रधान श्री सहाय यादव एवं 8 अधिवक्ता की विशेष प्रेरणा तथा श्री मरालाल कोषाध्यक्ष आदि सभी सदस्यों के सक्रिय सहयोग से हो सका जिससे नम केतना एवं उत्साह का प्रभुत्व ही सका।

महेश सोनी
मन्त्री

श्री घुमलत प्रह्लाद कुमार आर्य धर्मार्थ ट्रस्ट, ब्यान्वियापाड़ा, रिप्लेन सिटी-322230

डॉ देवव्रत आचार्य सम्मानित

हिन्दीन सिटी। २५ गीय आर्य समाज के ग्याह दिवसीय वजुर्वेद धारागण यज्ञ का समापन बड़े ही उत्साहपूर्ण ढंग में सम्पन्न हुआ। इस सभ के अन्तर्गत भीमती शिष्टता ने वेद पाठ कु भूपेन्द्रसिंह ने भगवतोपदेश देहराज जी ने उपदेश व दिल्ली के गायक कल्पन कुमार ने भजनों का कार्यक्रम प्रस्तुत किया। प्रतिदिन दोनों मन्त्र महीला व पुरुषों ने सम्मिलित रूप से यज्ञ में भाग लिया। मुख्य यजनम हितेश कुमार रहे।

समापन पर ११ दिनेन जैन यो

उत्तरी नि शुभक सेवा जो वह भी भूधरम आर्य धर्मार्थ होमोपैथिक चिकित्सालय के लिये आर्य समाज ने देते हैं के लिये सम्मानित किया गया। पर्यावरण व यज्ञ विषय पर आयोजित निबन्ध प्रतियोगिता के विजेता ज्ञानो को पुरस्कृत किया गया। दिल्ली के प्रकाशक विजयकुमार गोविन्दराम हासनन्द के सत्कारक अजयकुमार को उनकी सहस्रिय प्रकाशन सेवा के लिये सम्मानित किया गया।

पिछले वर्षों की भाति आर्य समाज उन्नीसवीं सदी की घुमलत प्रह्लाद

कुमार आर्य साहित्य पुरस्कार से आर्यवीर दल के सफलक हैं। देवव्रत आचार्य को उनके द्वारा लिखित सम्पादित समीक्षित व सन्निहित 'भक्त चतुर्वर्ण्य' पर भागिक सम्मान स्वीकृत किया गया। लगभग साठ प्रतिनिधियों ने आपको फूलगुलाबधारा से लाय दिया। सम्मान के अन्तर्गत आपको फर्नाड हजार रुपये अभिनन्दन पत्र, शाल मौरियों की माला भेंट की गई। साथ ही एक विशिष्ट स्मृति चित्र भेंट किया गया। पुरस्कार यथे पिछले वर्ष तरह हजार रुपये थी।

प्रभाव परदेय आर्य

आर्य समाज मंदिर

गिरिहिन्दा (शेखपठ)-811105

-वार्षिक चुनाव सम्पन्न-

आर्य समाज मंदिर गिरिहिन्दा शेखपठ का वार्षिक चुनाव नव से सन् 2002-2003 के लिए श्री दर्शन कुमार जी की अध्यक्षता में निम्न पदाधिकारियों का चुनाव सर्वसम्मति से सम्पन्न हुआ-

| | | |
|---------------|---|-------------------------------|
| प्रधान | - | डॉ. शंकर लाल आर्य |
| उपप्रधान | - | श्री सुखदेव आर्य |
| मन्त्री | - | डॉ. सुखदेव प्रसाद जी विद्याधी |
| उपमन्त्री | - | डॉ. ज्ञानप्रिय शस्त्री |
| कोषाध्यक्ष | - | श्री रामचन्द्र आर्य |
| लेखा नियंत्रक | - | श्री गंगा प्रसाद आर्य |

डॉ. जी एम शस्त्री उपमन्त्री

आर्य वीर दल पुरानी सब्जी मण्डी के पास, जालोर

श्री नरेश आर्य मारवाड चेतना

पत्रकारिता पुरस्कार से सम्मानित

आर्य समाज के प्रतिष्ठित कार्यकर्ता एवं राजस्थान पत्रिका जालोर के सम्पादक नरेश आर्य को जोधपुर एवं उत्कृष्ट पत्रकारिता के लिए मारवाड का प्रतिष्ठित मारवाड चेतना पत्रकारिता पुरस्कार देकर सम्मानित किया गया।

मीनमाल में आयोजित सम्मान समारोह में जिला कलेक्टर श्री पी सी बरवाई ने आर्य को मारवाड चेतना पत्रकारिता पुरस्कार प्रदान किया।

श्री आर्य को पुरस्कार स्वरूप मिली प्यारवी की रुपये की चाँदी राजस्थान में पड़े भीमग अकाल में पकड़ों के चारे के लिए आर्य वीर दल के सम्बन्धक दलपति आर्य को जिला कलेक्टर श्री सी. बरवाई के हर्षो तीर्थी विसर्जी लोगों ने मुकुटवस्त्र से प्रशस्त की।

अभिका प्रसाद तिवारी
उपमन्त्री आर्य समाज जालोर

श्री. नरपत लाल आर्य प्रशासन द्वारा खेले के उत्कृष्ट सवालन के लिए सम्मानित

आर्य समाज जालोर के मंत्री नरपत लाल आर्य को सत्कर्त्ता दिवस समारोह पर खिला प्रशासन द्वारा खेलों के उत्कृष्ट सवालन के लिए सम्मानित किया गया।

जालोर नगर के साइ पुराजी मेनार्जी स्टैडियम में आयोजित स्वतन्त्रता दिवस समारोह में राज्य के समाज कल्याण मंत्री छोगालाल बाकोसिय ने आर्य को प्रशस्ती पत्र देकर सम्मानित किया। विभिन्न सामाजिक संगठनों एवं खेल सचों ने आर्य को बधाई दी है।

अभिका प्रसाद तिवारी
उपमन्त्री आर्य समाज जालोर

आर्य समाज

शाहपुर, कि-भीलवाड़ा

—आर्य समाज निर्वाचन एवं

पदाधिकारियों का चयन—

आर्य समाज शाहपुर की सभाजन सभा की बैठक दिनांक 8 सितम्बर को राति 8 बजे सम्पन्न हुई जिसमें सर्व सम्पत्ति से निम्न पदाधिकारियों का चयन किया गया—

- प्रधान — बरौलाल जी सोनी
- उपप्रधान — श्री सत्यत कुमार जी व्यास
- मन्त्री — श्री राम कृष्ण जी उस्ता
- उपमन्त्री — श्री बुद्धि प्रकाश शर्मा
- कोषाध्यक्ष — श्री सत्यनारायण जी
- प्रचार मन्त्री — श्री कन्हैया लाल जी आर्य
- पुरस्कारवाहक — श्री दीपचन्द जी आर्य
- व्यवस्थापक — श्री राजेश सिंह जी शर्मा
- पुरोहित — श्री सत्यपाल जी शर्मा
- कवीरक आर्य वीर दल — श्री नरपत लाल जी बनन
- सदस्य — श्री हीरालाल जी आर्य
- श्री कर्मसिंह जी
- श्रीमती सुषमा देवी जी
- श्रीमती जन्मपुष्पा जी
- श्री अम्बालाल जी आर्य।

आर्य समाज द्वारा येद प्रचार कार्यक्रम सार्वदेशिक आर्य प्रतिनिधि सभा के निर्देशानुसार शाहपुर में अनेक स्थानों पर 28.08.2002 से सितम्बर 31.08.2002 तक सम्पन्न हुआ।

येद प्रचार के अन्तिम दिन 31.08.2002 को योगीराज कृष्ण का जन्म दिवस निमित्त सभा का आयोजन श्री सत्यपाल जी शर्मा के पुरोहितत्व में सम्पन्न हुआ। कार्यक्रम में बच्चों को फलितिका वितरण किया गया।

मन्त्री आर्य समाज
शाहपुर कि-भीलवाड़ा

आर्य वीर दल जालोर द्वारा श्रावणी उपार्कर्म कार्यक्रम समारोहपूर्वक सम्पन्न

जालोर। आर्य समाज एवं आर्य वीर दल जालोर द्वारा श्रावणी उपार्कर्म कार्यक्रम समारोहपूर्वक सम्पन्न हुआ जिसमें वीरकर्म आर्य पति परिवार ने यज्ञ में भाग लेकर ऋषि प्रसाद ग्रहण किया तथा बड़ी सख्या में आर्य वीरों ने यज्ञोपवीत धारण कर राष्ट्र स्वा का सन्देश दिया।

सार्वदेशिक आर्य प्रतिनिधि सभा राजस्थान के उप प्रधान श्री सार्वसिंह आर्य ने कहा कि सार्वधिक पुरातन वैदिक धर्म के अनुसरण का समाज व राष्ट्र का कल्याण सम्भव नहीं है इसलिए वर्तमान परिस्थितियों में वैदिक धर्म की उपादेयता बढ़ गई है। आर्य ने कहा कि देव दयानन्द ने सत्ये धर्म का रास्ता बताया जिसका आम जन को अनुसरण करना चाहिए। उन्होंने यज्ञ द्वारा परमात्मा को याद करने की महत्ता को समझाते हुए कहा कि वैदिक धर्म ईश्वर वाणी है जिससे देव के माध्यम से पुस्तक के रूप में संचित किया गया है। येद हमारा धर्म है इसलिए वैदिक मान्यताओं एवं सत्यार्थ प्रकाश के सिद्धान्तों में ही मानव मात्र का कल्याण है। उन्होंने आर्य वीर दल के कार्यकर्तियों को प्रेरित एवं वीरवीरता के रूप में वेद एवं उपनिषदों के सिद्धान्त के माध्यम से समाज एवं राष्ट्रहित में कार्य करने का आह्वान किया। इस अवसर पर आर्य वीर दल के सहायक दलपति आर्य के नेतृत्व में कार्यक्रम अध्यक्ष पुरोहित राजपुरोहित लक्ष्मीनारायण जालोर प्रसिद्ध भजनोपदेवकेश केशवदेव शस्त्री राज्य मुख्यालय सच के अध्यक्ष नारायणसिंह जीवर्मा आर्य समाज धावापुर प्रधान मन्त्रालाल नायक एवं नगर पालिक अध्यक्ष मोहन लाल सिद्धांत का मार्गदर्शन कर स्वागत किया गया। कार्यक्रम के प्राथम्य में हवन के माध्यम से नवयुवकों एवं प्रबुद्ध नागरिकों ने समाज के कल्याण की कामना कर सकल्य लिया। हवन में रघुनाथ खत्री भवसिंह एवं चन्द्रकाश सोनी यजनान के रूप में उपस्थित थे।

इस अवसर पर शास्त्रीलाल पुरोहित राजपुरोहित ने कहा कि सत्संग एवं विचारों का लाल मानव जीवन में लेना चाहिए। अन्धधर्म में आसन्न का महत्व बताते हुए राजपुरोहित ने कहा कि खुशहाल घर नामक गदबुद्धि बालक जालोर के श्रीमती परिवार में जन्मे आर्य समाज के सूर्यय सत्यार्थी स्वामी निधानन्द सरस्वती के बताए गायत्री मंत्र के इन्द्रयमन करने पर भीमाल आनन्द स्वामी बन समाज का मार्ग दर्शन किया। उन्होंने सभी उच्चान एवं सामाजिक कुरीतियों के लिए आर्य समाज के प्रयास की प्रशंसा करते हुए कहा कि दयानन्द के सच की आधारशिला से ही मानव मात्र का कल्याण सम्भव है। पुरोहित ने कहा कि सत्संग तन को साफ करने का आध्यात्मिक साधन है। इस कुरसकारों को मिटाने के लिए नियमित यज्ञ एवं उपासना की

जानी चाहिये। पर्येषण एवं पीठित मानव की सेवा के सचने नवयुवकों को समाज एवं राष्ट्र के उत्थान के लिए कार्य करने का आह्वान किया।

इस अवसर पर भजनोपदेवक केशवदेव शस्त्री ने ईश्वर बन्दना ओम् नम गाय कर तूत हवन रघुनाथ कर् के माध्यम से ओम् की महत्ता समझाते हुए कहा कि दयानन्द ने सत्यार्थ प्रकाश के पहले सल्लालस में परमात्मा के लिए ओम् शब्द का उल्लेख किया है। शास्त्री ने कहा कि मुण कर्म एवं स्वभाव से परमात्मा के अनेक नाम हैं परन्तु उपासना के लिए ओम् नाम सर्वव्यापक है। शास्त्री ने गुरुत्व के लिए यज्ञ को उत्तम मन्थन बताते हुए कहा कि पंच यज्ञ से ही मनुष्य का जीवन परमात्मा से जुड़ता है। मनुष्य को धर्म अर्थ काम एवं मोक्ष रूपी पुरुषार्थ करने चाहिए। उन्होंने श्रेष्ठ एवं उत्तम कर्म के साथ इन्द्रियों को स्वयंभित कर पाप कर्म से दूर रहकर समाज व राष्ट्र के लिए कार्य करने को कहा। शास्त्री जी ने भजन के माध्यम से प्रबलन देते हुए कहा कि जब भी गति स्वत नहीं होती है उत्तम वस्त्र प्राणी गति देने वाला परमात्मा परमेश्वर है जो सर्वत्र विद्यमान है। शास्त्री ने कहा कि श्रावणी पर्व सत्यार्थ एवं चिन्तन करने का पर्व है अत वेदों द्वारा प्रदत्त धार आश्रम व्यवस्थाओं को अपना कर्म बनाना चाहिये। उन्होंने देव दयानन्द उपादेय कृतो से उते उपकार नीद से हट जागते रहेगे की कर्मोदक भजन प्रस्तुत किया जिसमें व्याख्याता त्रिवेणी सिंह ने समीत दिया। कार्यक्रम में आर्य समाज धावापुर प्रधान मन्त्रालाल नायक एवं राज्य मुख्यालय सच के अध्यक्ष नारायणसिंह खत्री ने भी सम्बोधित किया।

इस अवसर पर आर्य वीर दल जालोर के सवालक दलपति आर्य ने स्वागत भाषण में आगन्तुकों का स्वागत करते हुए समाज का राष्ट्र के लिए उत्तरदाता से कार्य करने का आह्वान किया। इस अवसर पर जालोर के पूर्व उपखण्ड अधिकारी भवसिंह साहु द्वारा किए गए विकास कार्य के लिए आर्य वीर दल द्वारा साफा श्रावक अभिनन्दन किया गया।

समारोह में कोषाधिकारी एम एल आर्य पार्श्व धरेश्वर मेहता हेमन्त परमार नागरिक बैंक के डायरेक्टर मोहन पाराशर श्वेत्न मुखोप सचिव मारवाडसिंह राजपुरोहित आर्य समाज के प्रधान वल्लभाराम आर्य सहित बड़ी सख्या में प्रबुद्ध नागरिकगण उपस्थित थे। कार्यक्रम का संचालन आर्य समाज के मन्त्री नरपतलाल आर्य ने किया।

अभिका प्रसाद तिवारी
उपमन्त्री आर्य समाज जालोर

स्वामी आत्मबोध सरस्वती को श्रद्धांजलि

नई दिल्ली। आर्य समाज के विश्व विख्यात स्वामी आत्मबोध सरस्वती (पूर्व महात्मा आर्य भिष्म) जिन्होंने भारत में ही नहीं विश्वभर में ही आर्य समाज एवं स्वामी दयानन्द सरस्वती के मतवर्ती का प्रचार-प्रसार किया का कुसुम दिनांक 04.08.2002 को प्रात 5 बजे इदमयगति रुक जाने से आर्य बानप्रस्थ आश्रम जमालपुर हरियाणा में स्वर्गवास हो गया।

उन्नीस वर्षावस दिनांक 06.08.2002 को प्रात 9 बजे आर्य बानप्रस्थ आश्रम से आरम्भ हुई और प्रात. 11 बजे उन्नीसी वैदिक रीति से अन्त्येष्टि सम्पन्न हुई जिसमें आर्य बानप्रस्थ आश्रम के योगाचार्य एवं स्वामी चौ तन्त्रिसिंह हुए ही साव ही सार्वदेशिक आर्य प्रतिनिधि सभा की महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टंकन आर्य प्रादेशिक प्रतिनिधि सभा की ए.पी. कौलज प्रमोदकर आर्य आश्रम से आरम्भ हरियाणा तथा विभिन्न आर्य समाजों एवं आर्य सत्यार्थों के अधिकारी सम्मिलित हुए।

उन्होंने आर्य समाज के मतवर्ती के अनुसार 80 वर्ष की आयु में कावस्थ एवं 75 वर्ष की आयु में स्वस्वत आश्रम की दीक्षा ली। उनके नेतृत्व में मुझे आर्य बानप्रस्थ आश्रम का स्तोकक बनया गया। वे प्रप्रिय हैं जब से श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टंकन की स्थापना हुई है लगभग 80 वर्ष से महर्षि दयानन्द जन्म स्थल टंकन में प्रतिष्ठित जाते थे। वे टंकन आर्य को अपनी ओर से तो चार दैते ही थे सच ही अन्य सत्यार्थों एवं

महानुभावों से भी अच्छी राति दान स्वरूप विलयते थे। उन्होंने प्रजापति कर रही थी कि वे आजीवन प्रतिष्ठित महर्षि दयानन्द जन्म स्थल टंकन में मनारे जाने वाले आर्य बंधोवस्त्र पर टंकन जाता रहूँ। उनके निधन से आर्य समाज को जो क्षति पहुँची है उससे अधिक श्री महर्षि दयानन्द सरस्वती स्मारक ट्रस्ट टंकन को भी महान क्षति पहुँची है।

न टंकन ट्रस्ट की ओर से एवं समस्त आर्य सत्यार्थों की ओर से संवेदना प्रकट करते हुए परमाला से प्रार्थना करता हूँ कि दिवगत आत्मा को शांति एवं स्वर्गति प्राप्त हो।

रामानुज महाल मन्त्री

श्री नारायणसिंह सगलालिया को मातृशोक

श्री नारायणसिंह जी मन्त्री आर्य समाज गरीठ की पुण्या माता श्रीमती भवानीबाई 72 वर्ष दिनांक 8.9.2002 को दिवगत हुई। मुक्तिवाम पर पूर्ण वैदिक रीति से अन्त्येष्टि की गई एवं आर्य समाज के सभी पदाधिकारियों एवं सदस्यों द्वारा पुण्याजलि अर्पित की गई। श्रद्धांजलि अर्पित करने वालों की मुखला में वैदिक विद्वान श्री जन्मलक्षर श्री श्री मनीषीकरक मल्लार श्री हरिनाथ कुमाराव प्रा प्राध्यापक कुशलानन्द आर्य आर्य ब. अधिकारता श्री मनोहर देवी आदि थे।

प्रधान आर्य समाज गरीठ वि मन्त्रालय मंत्र 468890

सद्व्यवस्था

समसदायाता सम्मेलन में वी। पूर्व प्रधानमंत्री इन्दु कुमार गुजराल सहित सभी ने मंगलवार को गांधीनगर के स्वामीनारायण आश्रम मंदिर पर हुए आतकवादी हमले की कड़ी निंदा करते

अब हमें यह समझना समझनी है कि क्या इस प्रकार के अभियान से सामाजिक-सांस्कृतिक क्रांति होगी? क्या सम्भव बनो 'ज' अर्थात् जितने युवक 'ज' सको'गे' लखनऊ और बंगाली मूलसमाज और इलाहाबाद हमारे सम्मेलन में बन्ने नही पाएंगे? हाइड्रो में निम्न-पुत्रे नहीं आयेगे? हमें दृष्टि में सब हमें नही पुत्रगणियों को समझित करने में प्रवृत्त करने नन्द और सूर्य की दयानन्द-अपेक्षित युद्ध उसका प्रवर्तन करी अतिशयेन जी का यह प्रयास असफल रहे। समीचीन अभियानों का विचार था कि यदि हमें यह पद अधिक आग्रह नहीं करे तो सब धर्मगुरुगणों हमारे साथ चले सकेंगे? पन्तु यह परीक्षण असफल रहा। यदि और और समाज को अलग करने की हमें दूरतरे धर्मगुरुगणों हमारे साथ नहीं देते? हमारी मान्यता तो यह है कि वैदिक धर्म का भाग्य ही इसी अभियान में उजाड़ पर सब धर्मनिरपेक्ष एकलित हो सके हैं। यदि हमें बुद्धता प्राप्त हो तो आर्य समाज के झण्डे को नीचे यह अभियान चलाया होता तो हमें अधिक सफलता मिलती। यद्यपि लखनऊ से दिल्ली तक हमारे यात्री दल का अर्ध आसमानों में स्फाटित किया पन्तु यह जोषाधिकारिता मात्र थी। यात्री दल के रथाना हमें जो पथ में समर्पित कार्यकार्यकों के पदोति निवेदन लगाता वह जयन्त १५ पंचमिहारी हमारी प्रवृत्ति से भगवन्त प्रवृत्त करे। अधिकतर पदमिहारी आर्य समाज के अतिशयेन सूर्य से लेकर सूर्य से उड़े हुए हैं। आर्य समाज के अतिशयेन यदि जय साहो' में 'पिचुन गये' जल' की भाषा होती तो उम्मेद अब तक मिलाया हो गया होता। अनेक आर्य तो हमें तो मुम्भय का संदेश देता है और केवल तब अधिकश्रित्य से मुक्त करने के लिये प्रयास करती हैं। दूसरे भव अधिकश्रित्य को छोड़ने के लिये तैयार हो नहीं हैं। यह मत मानतार पन्तु को कहा था कि वे नहीं और झण्डे लेकर आर्य पर कोई भी अपना झण्डा और बैनर नहीं लाया। हमारी यात्रा शोक यात्रा नहीं लेते इसीलिए हमने आर्य के झण्डे लगा लिये ताकि यात्री दल को कोई प्रवचन बन सके पर हमारे स्थितिओं को यह भी रास नहीं आया और 'नने बन पर यह आर्य लोग' की विद्या कि आर्य समाज इतने अभियान का हाइजेक कर लिया है। यदि भूधु प्रवृत्ति से हमने आर्य समाज के झण्डे के नीचे भव भवभारत बेरोजगारी गतिविध असफलता गरीबी साम्राज्यिक सन्तुषण एवं राष्ट्र की अन्य ज्वलन्त समस्याओं के समाधान के लिये राश्ट्रियता द्वारा अभियान चलाने व 'नने' तो समस्त आर्य समाजों द्वारा हमारे सन्तुषण, समाजों होता और प्रत्येक वर्ग का अनुयायी भी हमारे विचारों का समर्थक होता। मेरी श्रुति में हमें सर्वसम्मान अर्ध समगदत का मजबूत भजनन के लिए सार्वजनिक की यात्रा करनी चाहिये। आर्य समाज आर्य की एक कक्षा नहीं है। आर्य समाज की विभगाधिया सर्वत्र फैली हुई है। यदि वह विभगाधिया को एकलित किया जाए तो एक पञ्जाबियों बाकाया जा सकता है। इन दयानन्द, अद्वयानन्द, उम्मेदशान्द, विलियम मातृशाला, लाला लजपतदा एवं हजारों क्रांतिकारियों के सन्तानों के भारत की तथैवी-वस्तु के सामने ऐसे और उसके लिये सार्वभौमिक है कि प्रवृत्ति करे तो देश में क्रांति हो सकती है। अतिसरुभ अभियान में सैकड़ों हस्तियों ने सहयोग देने का अवसरान दिया था पन्तु किन्तु लोभने ने सहयोग दिया। हमारे कथनाव है कि दयानन्द के रस्ते पर चल कर हम मान्य कथनाव कर सकते हैं। उससे दूर दूर दूर एक पक्ष विभगाध का ही प्रवृत्ति है।

जातिवाद के विषधर का भयंकर स्फीत फूत्कार

[illegible]

हम बर्बर युग में रह रहे हैं छात्रों द्वारा आचार्यों की पिटाई

—घनरथान वर पित्रापी

जगदुर 06 अक्टूबर। यह विशालीन शिक्षा प्रणाली देश को कहा ले जायेगी? पारवत्या शिक्षा प्रणाली के अनानुकरण ने देश को विनाश के कगार पर छाक कर दिया है। लार्ड मैकाले की सादुर ढोही शिक्षा प्रणाली के विरुद्ध आर्य समाज ने एक विकल्प दिया था। इंग्लैण्ड के पूर्व प्रशासनिक मैकालेनाल ने कहा था कि मैकाले की शिक्षा पद्धति की अलोचना तो सभी करते हैं परन्तु विकल्प तो केवल आर्य समाज ने ही दिया है। यह उद्गार उन्होंने तब व्यक्त किए थे जब वे मुकुन्दल कागड़ी में स्वामी श्रद्धानन्द के दर्शन करने हुए मुकुन्दल की शिक्षा प्रणाली देखने आए थे। शिक्षा का प्रथम उद्देश्य छात्रों को संस्कारवान और चरित्रवान बनाना है। वैष्णव समारोह में श्री स्नातको के यही संदेश दिया जाता था— मातृ देवी भव पितृ देवी भव आचार्य देवी भव परन्तु हमने महर्षि दयानन्द के उपदेशों की अवहेलना की और मजाक उड़ाई। हमने स्वभावा स्वसङ्कित्य स्वसंस्कृति स्वर्ण की उपेक्षा की और पारवत्या संस्कृति में दीक्षित होकर हमने घोषणा की कि मातृ देवा वष पितृ देवी वष आचार्य देवा वष। आज सात भारत वर्ष इसी आशुतो संस्कृति की लक्ष्य में हैं।

राजस्थान विश्वविद्यालय में घटित निम्नलिखित वीरगत घटना से हमारे कान की पुट्टि होती है।

राजस्थान विश्वविद्यालय में चलने वाली प्रशासनिक सेवा पूर्व प्रशिक्षण कक्षा में शनिवार को एक

जाट राजा पर टिप्पणी के विरुद्ध तोड़फोड़ शिक्षकों और छात्र-छात्राओं को जमकर पीटा

शिक्षक द्वारा जाट राजा सूरजपाल के बारे में की गई कथित टिप्पणी से कुछ सौलतों के गुस्साएं एक सुरुवात विरोध के छात्र आज हिंसा पर उतरा हो गए। इतिहास से लेस करीब डेढ़ सौ से ज्यादा छात्रों ने विश्वविद्यालय के राजनीति विज्ञान विभाग पर छापा बोलकर शिक्षकों और छात्र-छात्राओं के साथ करीब आठ घण्टे तक जमकर मारपीट और तोड़फोड़ की। मारपीट में राजनीति विज्ञान विभाग के विभागाध्यक्ष और सेंटर के निदेशक प्रो. बी.एम. शर्मा गम्भीर रूप से घायल हो गए। उन्हें सवाई मानसिंह अस्पताल में भर्ती कराया गया है। इस घटना से विश्वविद्यालय प्रशासन भी सक्ने में आ गया और छह घण्टे बाद भी पुलिस ने प्राथमिकी दर्ज नहीं कराई गई। मध्य रात प्रो. शर्मा की ओर से प्राथमिकी दर्ज कराई गई। घटना के विरोध में राजस्थान विश्वविद्यालय के शिक्षकों ने मंगलवार को शिक्षण कार्य का बहिष्कार करने की घोषणा की है। इस बीच पुलिस ने देर रात करीब आठ घण्टे छात्रों को हिरासत में लिया से प्रात्यक्षदर्शियों के अनुसार शाम करीब पांच बजे प्रशासनिक सेवा पूर्व प्रशिक्षण केंद्र में कक्षाएं चल रही थी। यहां पढ़ाने वाले प्रोफेसर एच.बी. माधुर का शनिवार को निधन हो गया इसका कारण निदेशक प्रो. बी.एम. शर्मा ने आज एक कक्षा में जो दो मिनट का मौन रखकर कुट्टी कर दी थी। दूसरी कक्षा में जब शर्मा और छात्र-छात्राएं मौन रखकर प्रो. माधुर को श्रद्धांजलि दे रहे थे तभी करीब डेढ़ सौ से अधिक छात्रों ने कक्षा में घुसकर प्रो. शर्मा और छात्र-छात्राओं के साथ मारपीट शुरू कर दी। प्रत्यक्षदर्शियों के अनुसार छात्रों के हाथों में हाकी टियर सॉरी साईकिल की सैन और डंडे थे। दस-बीस छात्र शर्मा पर टूट पड़े जबकि अन्य ने कक्षा में मौजूद छात्र-छात्राओं से मारपीट शुरू कर दी। आखिरी बंद कर खड़े छात्र हलसे चरग गए और पूरे विभाग में भागवद मच गई। कई छात्र-छात्राओं ने तो विश्वविद्यालय से दूरकर अपने को बचाया। कई छात्र-छात्राओं को घोट आई है। छात्रों ने कक्षा का फनीचर और कैबिनेट तोड़ दिया। छात्रों ने

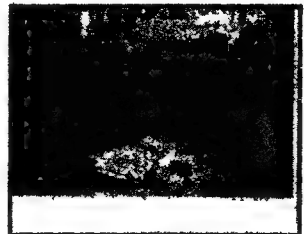
फनीचर तोड़ कर उनके डण्डे भी हाथ में ले लिए। पिटाई से बेहसा होकर जब शर्मा गिर पड़े तो उग्र छात्रों ने सेंटर के आफिस में जाकर तोड़-फोड़ शुरू कर दी और वहां बैठे प्रो. पी.डी. शर्मा और जे.सी. जोशी को पीटा। छात्रों ने आफिस की टेबिल शीशे कुर्तियां और अन्य सामान पूरी तरह करीब आठ घण्टे तक चले इस ताण्डव के दौरान ही छात्रों ने न.आ. गुप्ता विभाग के बाहर खड़ी शिक्षकों की तीन-चार कारों और छात्र-छात्राओं के स्कूटर, मोटरसाइकल पर भी उतरा। कारों के शीशे तोड़ दिये और स्कूटर, मोटरसाइकल को पिनकर तोड़कर...। बाद में जब किन्हीं ने पुलिस ने आने की शुरुआत छात्रों को दी तो वे हितर बितर होकर वहां से फरार हो गये। विश्व विद्यालय में आग की तरह फैली इस घटना को सूचना से विभाग ने ग्रीह जमा हो गयी। तीनों घायल शिक्षकों को सवाई मानसिंह अस्पताल में भर्ती करवाया गया। जिसमें से प्रो. पी.डी. शर्मा और जोशी को प्राथमिक चिकित्सा के बाद घुट्टी में दे दी गई जबकि प्रो. बी.एम. शर्मा को सर्जिकल गहन चिकित्सा इकाई में भर्ती किया गया है। बी.एम. शर्मा को सिर, पीट, पेट और कमर में गम्भीर घोट हैं तथा हाथ में फेंचकर हैं। प्रो. पी.डी. शर्मा और जोशी को हाथ-पैर पीट और सिर में चोटें आई हैं। प्रो. पी.एम. शर्मा और अन्य शिक्षकों को ने बताया कि शनिवार को कक्षा में प्रो. एन. पहाडिया ने जाट राजा

सूरजपाल मारुत कल के अर्धशताब्दी के लेखक को लेखक की थी। इसका लम्बर एक छात्र महावीर सिंह उनसे उलझ पडा था। छात्र ने इसकी विकलगत सेंटर निदेशक की भी पूछा की की थी। बाद में शर्मा के कहने पर पहाडिया ने कक्षा में साइडिंक माफ की माग की थी लेकिन छात्र राजी नहीं हुआ और उनसे शिक्षक पर आपत्ति करते हुये सेंटर में नहीं पडने की बात कही। इस पर शर्मा ने उसे अपना ड्राफ्ट कापस लेने की सलाह दी। प्रो. शर्मा ने रिपोर्ट में बताया है कि शनिवार को ही छात्र महावीर सिंह ने उन्हें और एन.सी. पहाडिया को जान से मारने की धमकी भी दी थी। महावीर सिंह के नेतृत्व में हॉस्टलों के छात्रों ने धमकासिंह पार्क में एक मिट्टि कर पहाडिया को सबक सिखाने पर फैसला किया था। इसकी भनक लगने के कारण प्रो. पहाडिया आज सेंटर नहीं आये थे। छात्रों ने प्रो. शर्मा के करीब दो तोले की सोने की सैन और जेब में रखे करीब छ हजार रूपये भी छीन लिये। इस बीच रात 10 बजे विश्वविद्यालय की ओर से इस घटना की प्राथमिकी दर्ज नहीं कराई गई थी। विश्वविद्यालय में इसी बंदी घटना के बाद यह सूचना प्रोक्टर की जिम्मेवारी बनती है कि इस मानव दर्ज कराए। देर रात तक इस बारे में टिप्पणी के लिये संप्रदाय प्राणीय सिंह बिजौरिया उपलब्ध नहीं हो सके। उच्च राजस्थान विश्वविद्यालय शिक्षक सच न मंगलवार को इस घटना के विरोध में शिक्षण कार्य का बहिष्कार करने की घोषणा की है। सच के अध्यक्ष प्रो. मनुकर श्याम चतुर्वेदी और सचिव डॉ. बी.डी. रावत ने हस्ताक्षरों को गिफतवार करने की माग की है और गिफतवारी नहीं होने पर कड़े कठम करने की चेतावनी दी है। अतिरिक्त पुलिस अधीक्षक (पूर्व) रोहित भादवा ने बताया कि शर्मा ने शनिवार को कोई रिपोर्ट दर्ज नहीं कराई। आज पुलिस को इस काफिर की सूचना मिलते ही अभियुक्तों की तलाशी शुरू कर दी है तथा कुछ छात्रावासों की तलाशी भी गई है। पुलिस ने करीब आठ दर्जन छात्रों को चिकित्सा में लिये है। घटना के लिए जिम्मेदार शिक्षी की आदमी को दस्ता नहीं जायेगा।

राष्ट्रीय सेवा योजना वैदिक कन्या स्नातकोत्तर महाविद्यालय आर्य समाज आदर्श नगर जयपुर

राष्ट्रीय सेवा योजना द्वारा आयोजित चिकित्सा शिविर सम्पन्न व्याख्याताओं एवं छात्राओं द्वारा स्लेखिक रक्तदान

जयपुर 01 अक्टूबर। स्लेखिक रक्तदान सच्य रक्ता होता है। यह जानकारी स्वास्थ कल्याण सच्य बैंक के वरिष्ठ परामर्शदाता डॉ. के.के. मिश्रा ने वैदिक कन्या स्नातकोत्तर महाविद्यालय में राष्ट्रीय सेवा योजना द्वारा एक दिवसीय स्लेखिक रक्तदान और स्वास्थ परीक्षण शिविर के अवसर पर दी। इस अवसर पर महाविद्यालय के व्यवस्थापक श्री राजकुमार सहानी ने प्राचार्य डॉ. अरुण शर्मा ने राष्ट्रीय सेवा योजना के बारे में विस्तार से जानकारी दी।



कार्यक्रम की अग्रणी श्रीमती प्रमुखा सामेदी एवं चिकित्सक डॉ. के.के. मिश्रा के अग्रणी अपने स्वास्थ परीक्षण करवाते हुए

कार्यक्रम की अग्रणी राजस्थान सनातन सेवा की उपध्यक्ष श्रीमती प्रमुखा सामेदी ने दान की महिला एक लेखक काशी के मध्यम से बताते हुए दान करने वालों की ईश्वर के सनीप बताया। उन्होंने छात्राओं को स्लेखिक से रक्तदान में योगदान देकर जीवन सच्यक बनने का आव्हान किया। कार्यक्रम प्रमोटी डॉ. नीता पवार एवं डॉ. रीता दावीध ने बताया कि शिविर में 250 छात्राओं ने दान दिया एवं उनका स्वास्थ परीक्षण डॉ. प्रेम कलानी ने किया। डॉ. मिश्रा ने छात्राओं द्वारा उल्लेख फुल्ल रक्त दान करने पर प्रशंसित



शिविर में स्लेखिक रक्तदान करते हुए छात्र एवं महाविद्यालय के व्यवस्थापक श्री राजकुमार सहानी, श्रीमती सहानी डॉ. प्राचार्य अरुण शर्मा काशी काशी डॉ. रीता दावीध ने दान पचार्य राजकुमार अग्रणी डॉ. प्रेम कलानी ने बताया

होते हुए बताया कि अब तक किसी भी कन्या महाविद्यालय से इसनी अग्रणी मात्र में रक्तदान नहीं हुआ। राष्ट्रीय सेवा योजना की छात्राएं अग्रणी कु. गीतु सच्यन कु. गीतुन मिश्र, कु. कुतिस कु. मिश्र महेश्वरी कु. कल्याण शर्मा कु. कल्पित मिश्र कु. कल्याण गार कु. भावत अग्रणी ने एवं महाविद्यालय की व्याख्याता डॉ. प्रमोद गीत डॉ. इन्द्रागल रत्न डॉ. एन.सी. पहाडिया ने 11 घण्टे रक्तदान किया। कार्यक्रम में श्रीमती देव तांडे महाविद्यालय के उपध्यक्ष की जयपुर गांधी वी.सी.पी.डी. ने भी भाग लिया।

डॉ. अरुण शर्मा प्राचार्य वैदिक कन्या स्नातकोत्तर महाविद्यालय आदर्श नगर जयपुर।

अनुसंधान पर जनशक्ति में अधिक
कार्यवाही करने का उद्देश्य है।
भारत
(समाचार भाषा)

70 श्री जगदीश वेदालकार
पुस्तकालयाध्यक्ष
गुरुकुल कांगड़ी विश्वविद्यालय
हरिद्वार उत्तराखण्ड यू पी

यह स्पष्ट होना चाहिए नहीं ही गई
 कि आप इन मासिकपत्रों में जो
 नहीं हैं, वास्तव में वे सिद्ध करते
 हैं कि आपने जो भी मासिकपत्रों
 में आपका नाम लिखा होना नहीं है
 ६. इन दिनों में लगभग ३०
 लाख के लोगों इन मासिकपत्रों



जोधपुर सभा की आर्य समाजों द्वारा राष्ट्र उत्थान यज्ञ

आर्य वीर दल के बड़वानल की उच्छृंग तरंगों ने कृपवन्तो विश्वमार्यम् के जयघोष से गगन की गुंजित किया

जोधपुर 20 अक्टूबर। जोधपुर सभा की आर्य समाजों द्वारा जोधपुर में 19 अक्टूबर को एक विराट राष्ट्र उत्थान यज्ञ का आयोजन किया था। जोधपुर के आर्य वीरों ने आर्य समाज के गौरवमय पुत्र एवं आर्य वीरों के हृदय सम्राट श्री गणेशसिंह की स्मृति में 8 अक्टूबर से 28 अक्टूबर तक आर्य समाज की प्रचार-प्रसार के लिये कार्यक्रम आयोजित करने का संकल्प लिया था। आर्य वीरों की अपने गुरु के प्रति कितनी असीम श्रद्धा है? श्री गणेशसिंह अपना पार्ष्विय शरीर त्याग कर 8 वर्ष पूर्व आर्य वीरों को जोड़कर परमात्मा प्रभु की गोद में बैठने के लिये चले गए। जोधपुर सभा के आर्य वीर आज तक भी अपने गुरु के बिछोड़ को सहन नहीं कर पा रहे। वर्ष भर आर्य वीरों को ज्ञात है परन्तु आर्य वीरों के हृदय में उनके गुरु पहले की तरह विराजमान हैं। हृदय में स्थित गुरु आज भी इन आर्य वीरों को प्रेरणा दे रहे हैं कि आर्य वीरों! चलो! जागो! महर्षि दयानन्द के चरणों में बैठ कर अनुराग का ज्ञान प्राप्त करो और इस दुर्गम पथ पर तब तक चलते रहो जब तक विश्व में वैदिक साम्राज्य की स्थापना नहीं हो जाती।

19 अक्टूबर को आयोजित विराट राष्ट्र उत्थान यज्ञ में प्रमुख वक्ता के रूप में स्वामी अग्निवेश जी को आमंत्रित किया गया था। उनके अतिरिक्त श्री सत्यनाथ साम्बेदी प्रो. कैलासनाथ सिंह एवं श्री जगदीश सिंह एक्स्प्लेन्ट को भी आमंत्रित किया गया था परन्तु प्रो. कैलासनाथ सिंह एवं श्री जगदीशसिंह इस सम्मेलन में नहीं आ सके।

19 अक्टूबर को प्रातः काल गम्भीर एक्सप्रेस जब जोधपुर प्लेटफार्म पर पहुँची तो जोधपुर का स्टेशन 'जो बोले तो अमय वैदिक धर्म की जय' 'जगत गुरु महर्षि दयानन्द की जय' के नारों से गुंजने लगा। पूरा प्लेटफार्म 'ओम्' के झण्डों से सजोमिला हो रहा था। हजारों यात्रियों की गज्र नारे लगाते हुए आर्य वीरों की तरफ उछली हुई थी। रेलगाड़ी से जब स्वामी अग्निवेश जी सत्यनाथ साम्बेदी उतरे तो आर्य वीरों ने उन्हें घेर लिया और गम्भीर नारे लगाते हुए स्टेशन के बाहर ले गए। वे आर्य वीर आर्य नेताओं को गाँवियों पर बैठाकर आर्य समाज पाबुपुर की ओर ले गए। इन गाँवियों के आगे और पीछे सैकड़ों आर्य वीर अपने हथों में जोश के झण्डे लिये हुए मोटर साइकिलों पर नारे लगाते हुए चल रहे थे।

पाबुपुर प्रांत जोधपुर से लगभग 12 कि.मी की दूरी पर है। यह गाँवों की बस्ती है। इस बस्ती में रहने वाले समस्त महर्षि आर्य समाज हैं। एक आर्य वीर के घर में आर्य नेताओं के आवासीय व्यवस्था थी। आर्य वीर इस राजधानी के अति प्रमुख की सम्पत्ति हैं 10-30 रुपये स्थायी अग्निवेश जी को अपने घर से गए जहाँ पर जोधपुर के अनेक मुस्लिम नेता

स्वामी अग्निवेश जी की प्रतीक्षा कर रहे थे। इन मुस्लिम नेताओं ने स्वामी अग्निवेश जी का जम्बूतयूर स्वागत किया और भारत में अमन वैन के लिये और साम्प्रदायिकता सत्त्व करने के लिये तन-मन-बन से सहयोग देने का आश्वासन दिया। देश में साम्प्रदायिकता के उन्मूलन एवं वांछित स्थापना के लिये



स्वामी अग्निवेश जी द्वारा किये जा रहे प्रयत्नों की उन्होंने मुक्त वोट से प्रशंसा की।

सायकल 4 बजे से राष्ट्रोत्थान यज्ञ प्रारम्भ हुआ। श्री हनुमान प्रसाद गौड़ यज्ञ के प्रहारा थे। आर्य समाज पाबुपुर का विशाल प्रांगण आर्य वीरों और आर्य परिवारों से भरा हुआ था। ऐसा लग रहा था जैसे जोधपुर का जन सैलाब उमड़ कर पाबुपुर आ गया हो। जोधपुरी परिधान में हजारों महिलाओं ने देव लोक का दृश्य उत्पन्न किया हुआ था। वे महिलाएँ भी अपने प्रति एवं परिकर सज्जित रहने वाले आर्य वीरों। आखिर महर्षि दयानन्द सारस्वती ने ही तो हजारों वर्ष के बाद इन महिलाओं को वन का अन्विष्टा बनाया था तो वे हर्षित प्रसन्न और प्रफुल्लित होकर वन में भाग लेने क्यों नहीं जातीं।

जोधपुर सभा के हजारों आर्य वीर जले बस्त्रों में उल्लास

और उमंग के साथ राष्ट्रोत्थान यज्ञ की व्यवस्था में लगे हुए थे। ऐसा प्रतीत होता था कि जैसे हम किसी आर्य लोक में पहुँच गए हों। इस आर्य समाज के विशाल प्रांगण में सैकड़ों यज्ञ कुण्ड की चारों तरफ सैकड़ों दम्पति यज्ञ करने के लिये बैठ गए और सारा आकाश वेद मंत्रों से और स्वाहा के स्वर से गुंजने लगा।

यज्ञ के बाद यज्ञ की महिमा पर श्री सत्यनाथ साम्बेदी ने प्रवचन दिया। साम्बेदी जी ने कहा कि आज सारे भारत वर्ष में राष्ट्रोत्थान यज्ञ की आवश्यकता है। आजादी के बाद हमने सोचा था कि घर-घर में घी के दीये जलेगें। घी-दूध की नविका बहेगी। कोई भुख से नहीं मरेगा। सर्वत्र सुख और समृद्धि होगी परन्तु आजादी के बाद इन 80 वर्षों में हमारे देश की क्या दुर्दशा हो गई है? क्या घी की नविका तो बहुत दूर की बात है! आज हम पानी की एक-एक बूँद के लिये लड़ रहे हैं। नीत हमारे सिर पर मण्डरा रही है। इस सदी का सबसे भयंकर अकाल नीत बन कर प्राणी जगत को निगलने के लिये तैयार है। भुखमरी बरोजगारी गरीबी कुपोषण भय दायिका जातिवाद अस्पृश्यता नरिन्दीनता हिंसा से त्रस्त होकर सारा देश त्राहि-त्राहि कर रहा है। भ्रष्टाचार चरम सीमा पर है। मुट्ठीभर लोगों ने राष्ट्र की सम्पत्ति पर कब्जा किया हुआ है। राष्ट्र की 80 प्रतिशत सम्पत्ति 20 प्रतिशत लोगों के पास है और 20 प्रतिशत सम्पत्ति पर 80 प्रतिशत गरीब जनता अपना निर्वाह कर रही है। अनी हमने विजयदशमी पर रावण और मेघनाद के कागज के पुतलों को जलाया। करोड़ों रुपया इस गरीब मुक्त में पटाखों पर खर्च किया। विजयदशमी इसी लिये तो मनाते हैं कि इस दिन वैदिक साम्राट का परामर्श हुआ और वैदिक राज्य या राम राज्य की स्थापना हुई। गोस्वामी तुलसीदास ने राम राज्य का वर्णन

बरनामग निज-निज धरम निरत बंद पथ लोग। बलहि सदा पावहि सुखहि नहि भय सोक न रोग। वैदिक वैदिक मोक्षिक तथा राम राज नहि काहुँ व्याप। सब नर कहैं सत्वर श्रीति बलहि स्वर्ण निरत सुनिरीति। जल्प मृगु नहि कल्पित वीरपक्ष कुम्भर सब निरज सुतीर। परन्तु आज राम के नाम पर क्या हो रहा है? रावण दहन से हम क्या प्रेरणा ले रहे हैं? रावण दहन करने वाले लोगों ने क्या कभी सोचा कि हम आज तक भी राम की आराधना क्यों कर रहे हैं? राम इसीलिये तो आज तक करोड़ों घर-गोश्यों का आराध्य है क्योंकि वह वेदानुयायी था और वैदिक राज्य की स्थापना के लिये उसने रावण का संहार किया था। क्या रावणवत वेद मार्ग पर चलने के लिये तैयार है? इन रावणवतों ने वेद मार्ग पर चलना तो बुरा आज तक वेदों की भी दान नहीं किये हैं। रावण की सार्वभौमता तभी है जब रावणवत

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कर्मयोगी स्व. मदनसिंह आर्य
17वीं पुण्य तिथि-8 अक्टूबर 2002

युक्त हृदय समाज
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आर्य की 17वीं
पुण्यतिथि आर्य वीर
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पुर की शिमिली आर्य
समाजों ने 8
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यज्ञ धोर
तत्पश्चात् भजनोद्देश
और स्व मदनसिंह जी
आर्य की श्रद्धांजलि
का कार्यक्रम आर्य वीर
दल जोधपुर और आर्य
समाज पावपुरा के
संज ५ बजे
तत्पश्चात् मनाया

सुप्रसन्न श्री गजेन्द्रसिंह आर्य विशेष अतिथि के रूप में उपस्थित
थे। स्व मदनसिंह आर्य के बाल सखा श्री दीलतसिंह जी ने
मदनसिंह जी आर्य के निधित्त ध्यायान के सम्पूर्ण सुनाते
हुए बताया कि बदले के रूप में ससुराल पट्टेपर पार पाते
वैरे ने उनकासे में भी उन्होंने ध्यायान किया तथा वे अपने
निगम के पर्वक थे। स्व मदनसिंह जी के सैनिक साथी श्री
हरिश्चन्द्र जी मेहरा ने भारत पाक युद्ध के सम्पूर्ण सुनाकर
अपनी श्रद्धांजलि दी। यहीं राजस्थान एमेच्योर बॉक्सिंग
एसोसिएशन के अध्यक्ष श्री नारायणसिंह जी लोधी ने उन्हें
राजस्थान के बॉक्सिंग के प्रणेता के रूप में प्रस्तुत करते हुए
1952 से बॉक्सिंग के खेल की राजस्थान को देन स्व
मदनसिंह आर्य के द्वारा देना बताकर विस्तृत जानकारी
सहित राजस्थानी एमेच्योर बॉक्सिंग एसोसिएशन एवं राजस्थान
जिमनास्टिक एसोसिएशन की स्थापना में उनके सहयोग के
सम्पूर्ण सुनाकर उनको श्रद्धांजलि दी और कहा कि उनकी
प्रेरणा से इस खेल को दिनों दिन उत्थ स्तर पर पहुँचाने में
व प्रयासरत थे।
तत्पश्चात् आर्य वीर दल जोधपुर के सचालक भाई

भारत चीन 1965 तथा 1971 के भारत पाक युद्ध के उनके जीज
को रोमांचित करने वाले साहसिक सम्पूर्ण सुनाए। 1971 में स्व
मदनसिंह आर्य लीवाला की ऐतिहासिक लड़ाई के एक साहसी
युद्धा में जिसमें पाकिस्तान की फौज टीकों को अंकक कर भाग
गई थी। नारायणसिंह आर्य ने वे क्रान्तिकारी सम्पूर्ण जो स्व
मदनसिंह जी आर्य आर्य वीरों को सुनाया करते थे उनसे एक
बड़ा वैरागी के बसिदा की गाथा सुनाकर रोंगट खड़े कर दिये।
राजस्थान प्रभुर्षु सैनिक कांग्रेस के अध्यक्ष व सम्पूर्ण के मुख्य
अतिथि के मेहन्दा जी माधुर ने कहा कि मुझे गर्व है कि स्व
मदनसिंह जी भार्य मेरी आर्मेट कोर के रिसालदार मेजर थे। ऐसे
बहुआयामी व्यक्तित्व को श्रद्धांजलि अर्पित करने में अपने आप को
मैं गौरवित महसूस करता हूँ। राजस्थान आर्य वीर दल के अध्यक्ष
रामसिंह आर्य ने आज के समय में बिगड़ते वातावरण में स्व
मदनसिंह आर्य के स्मृति आदर्शों की सार्थकता पर प्रकाश डालते
हुए इस परिच्छेद में आर्य समाज और महर्षि दयानन्द द्वारा प्रतिपादित
शिद्धान्तों को ही सही बताया। अन्त में आर्य समाज पावपुरा के
प्रधान भरलाल आर्य ने आयोजन में सहयोग के लिये सभी का



आर्य वीर दल के अध्यक्ष रामसिंह आर्य वर्तमान परिच्छेद में स्व मदनसिंह जी के विद्यास्वात
और आर्य समाज पर अपने विचार रखते हुए



यज्ञ में बैठे यजमान आर्य वीर जोधपुर के सचालक नारायणसिंह आर्य व अध्यक्ष मदनसिंह
पवार आर्य समाज पावपुरा के नेमीचंद जी व आर्य महर्षिद के पुत्रोत्तमसिंह

गया जिसका आगाज आर्य समाज पावपुरा की नजन मण्डली
ने जिस दिन वैद के मंत्रों से धरती को सजाया जायेगा
कोरस से किया। इस अवसर पर स्व मदनसिंह जी आर्य के

नारायणसिंह आर्य ने अपना विर परिचित क्रान्तिकारी उद्दे-
न पश्चित रामप्रसाद बिस्मिल की गजल 'देश की खातिर
मेरी दुनियाये यह तबाही हो उन्होंने बताया कि 1962 के

गणपतसिंह पर्वर अध्यक्ष आर्य वीर दल जोधपुर

आर्यसमाज गंगापुरसिटी द्वारा वृहत ग्रामीण प्रचार योजना

आर्य समाज गंगापुरसिटी द्वारा दिनांक 15 सितम्बर से 15
अक्टूबर तक ग्रामीण प्रचार का नया आयोजन किया गया।
सवाई माधोपुर व करौली आर्य उपप्रतिनिधि सभा के प्रधान
मदनमहन आर्य के नेतृत्व में पुण्य स्वामी ब्रह्मानन्द जी आर्य
जगत के प्रसिद्ध भजनोपदेशक दु. भूपेन्द्र सिंह आर्य व डॉक्टर
बादक ओमप्रकाश आर्य ने ग्राम ऊमरी हथीवर च्चालीसी
सैकपुर बहीरपुर कुटला बगमवास पिपवाही मझरी
लालसोट में वैदिक धर्म का प्रचार किया। हजारों की 'ख्या' ने
ग्रामीण भाईदों ने आर्य समाज के विचार सुनाते तथा सैकड़ों
सत्यार्थ प्रकाश करीदे। इस प्रकार से यह भ्रम दूर गया कि
आर्य समाज का प्रचार नहीं हो सकता। ये सभी गांव वे करने
ऐसे थे जहां कभी आर्य समाज का प्रचार नहीं हुआ। आर्यसमाज
गंगापुरसिटी के प्रमुख श्री भगवानसहाय शम्भुलाल व आर्यवीर
दल के कार्यकारी गोविन्दधर्य शिमुआर्य व अन्यो आर्यवीरों
ने गांवों में जाकर सम्पर्क किया।

का हमारा प्रोग्राम चला। महाजरी करने में तीन दिन तक
वैदिक भक्त बजाकर हमारा टीला ओझ का श्रद्धा लालसोट
पहुचा। लालसोट में पूर्व परिचित अरविन्द जी शम्भुलाल की
दुकाण पर पहले उन्होंने प्रचार के लिए अनाउन्स करवाया।
पुरानी अनाज मंडी में सभा रखी गई। मुखरित से चालीस लोग
उपस्थित थे। स्वामी ब्रह्मानन्द जी व भूपेन्द्र जी ने ओजस्वी
व्याख्यान ऐसा लगा जैसे हमने दीवारों को भाषण सुनाया।
दूरे दि। आश्चर्यजनक घटना घटी। कानागला मंदिर जे
व्याख्याकगण मुझे अकर मिले और आग्रह किया कि आपने
व्याख्या हमने घर पर सोले सुने थे बहुत अच्छे लागे। आज
आपका प्रोग्राम कलीभाता मंदिर पर करायेंगे। मैंने उनसे कहा
मैं आग्रह-गज वा प्रोग्राम मंदिर पर होगा कहे पुराजिनों को
बुरा नहीं लगेगा। उनके अधिक आग्रह करने पर मैंने अपनी
स्वीकृति दे दी। उन्होंने मंदिर के माईक से आर्यसमाज के
विद्वांस के भाषण होगा ऐलान कर दिया। हम समय पर
पहुँच गये। कई हजार की भीड़ हमें इकट्ठी हो गई।
तीन घंटे तक भूपेन्द्र जी भजनोपदेशक ने स्वामी ब्रह्मानन्द जी
ने श्रोतार्थों को बोये रखा। रौबड़े रूपये का 'रुद्रिष्ठ बिका
जिसमें निरन्तर विविध सत्यार्थ प्रकाश ज्वाला बिका। लोग
लालायित रहे। तीसरे दिन हमारा प्रोग्राम श्री विद्याधर ने हुआ
करौली 1500 छात्रों की सभा में श्री भूपेन्द्र जी ने सभा बान दिया।
आर्य समाज लालसोट में यह प्रथम सभा थी।

निष्कर्ष- एक माह के वैदिक धर्म प्रचार से ऐसा लगा कि
अगर आर्यसमाज के लोग धर्म के झगड़ों को छोड़कर जिला
स्तर पर एक उपदेशक मण्डली रखें तथा शहरी व कस्बों में
आर्य वीर दल की शाखाएं चले तो पांच वर्ष में हम एक बहुत
सर्वकार सौकर कर सकते हैं। आर्यवीर दल ही आर्यसमाज के
प्रचार का सफलतम मध्यम है। हमें उत्सवी पर खर्च होने वाला
धन गांवों में व आर्य वीर दल की शाखाओं व कार्य करण
चाहिये। हम पुनः दीपावली के बाद प्रचार अभियान चलानेगे।

मदनमोहन आर्य
प्रधान आर्य उग्र सभा सवाईमाधोपुर व करौली

दीप जले फिर

गहन तिमिर हो दूर धरा का
चिह्नेर धू पर नव आसों को
हर्षित जन समुद्राव बहा हो
उन्नतियों का दृश्य बिलोके।
जनक तथा अस्त्रान अविद्या
का तम हरे यक्षा दुःखर।
सत्य धर्म व मानवता के
दीप जले फिर ब्याह निरन्तर।

कैल रही है आज राक्षस ने
निर्मल लोक अमर दुनिया।
अन जन के ही भ्रम खड़ी है
भेद भाव की कटु कलितिया।
मनुज ब्रह्म है आज मनुज के
लोले लहू का ही प्यार।
पलत गया है आज सत्य का
परिचर्यान मय सा पार।

जग मय दीपो के इस पावन
दिन पर कैसे खुरी मरारा।
चाह लगे है कठिन ह्रदय पर
कैसे हम सब 'ीप जलाए।

अपनी पावन सत्कृति से हम
लो ले आओ। दिव्य प्रकाश।
कटक मय स्थितियों में भी
किरित होवे नही हताश।

ब्रह्मा से निष्ठा से आओ
नैतिकता का दीप जलाए।
कैसे सत्यजल हरे चरित्र को
धना कुहासा दूर भगाए।

दीपावली का पर्व सुपावन
देता हमें यही सन्देश।
धरा ब्यास व देश बाह्य का
दीप जले अन्तर सविशेष।

राजेश्वर आर्य विद्यावापसि
मुसाफिरखाना सुलतानपुर उ.प्र.

ਦੇਸ਼ੀਆਂ-ਭਾਗੀ-ਵਧ (ਜਾਨ-ਭਾਗੀ) ਵਧੀਕ-ਭਾਗੀ-ਭਾਗੀ (ਜਾਨ-ਭਾਗੀ) ਵਧੀਕ-ਭਾਗੀ-ਭਾਗੀ (ਜਾਨ-ਭਾਗੀ)

11 नवंबर
सुनबख्शो दिवसवारम्

11 नवंबर
सुनबख्शो दिवसवारम्

आर्य नीति

वर्ष 2 अंक 44 08 नवम्बर 2002 मूल्य एक प्रति 3 रुपये डाक पंजियन सड़या RJ-2637/2001 वार्षिक मूल्य 76 रुपये

ऋषि निर्वाण दिवस

दिवाली के दिन माताओं की गोद में बच्चों की लार्शें भारतमाता के 35 करोड़ बच्चे भूखे सो गए

(ऋषि निर्वाण दिवस पर श्री सत्यव्रत सामवेदी के भाषण के कुछ अंश प्रस्तुतकर्ता राजेश भटनागर)

जयपुर 4 नवम्बर। आर्य समाज आदर्श नगर जयपुर द्वारा ऋषि निर्वाण दिवस वैदिक कन्या इनामकोटर महाविद्यालय के सभागार में अत्यन्त उत्साह एवं उमंग पूर्वक मनाया गया। दिवाली पर्व के बावजूद सभागार ऋषि महर्षि से सजाया गया हुआ था। इस अवसर पर श्री सत्यव्रत सामवेदी ने युग पुरुष महर्षि दयानन्द के अप्रतिम व्यक्तित्व पर प्रकाश डालते हुए कहा—

आज हम उस युग पुरुष की श्रद्धांजलि देने का लिए उज्ज्वल हुए हैं जिसने हजारों वर्षों से नारीय यात्रा करती हुई और अवकाश में भटकती हुई मानवजाति को कुछ और शक्ति की मूर्तिल दिखाकर स्वर्णक पथ को प्रकाश किया। आज अज्ञान और विश्वास और दुराग्रह के कारण मानवजाति भले ही युग पुरुष ऋषि दयानन्द की उपासना करे परन्तु अज्ञान तिमिर के विच्छिन्न होने पर मानवजाति को धुलौक में प्रकाश के अमूल्य रश्मि विखीन करता हुआ आदित्य ब्रह्माचार्य महर्षि दयानन्द दिखाई देगा।

वैदिक धर्म के तीन स्तम्भ हैं—मर्यादा पुरुषोत्तम श्रीराामबन्धन योगेश्वर कृष्ण और यैव दयानन्द। पीछाधिकों ने श्रीराामबन्धन और श्री कृष्ण को अवतार के आसनों पर बैठा कर दो स्तम्भों को तो तोड़ दिया है और अब वैदिक धर्म एक स्तम्भ पर टिका हुआ है और वह स्तम्भ है देव दयानन्द का स्तम्भ। यह स्तम्भ इतना दृढ़ है कि पीछाधिक

इस स्तम्भ के

आस-पास घटकों का भी सहन नहीं करते परन्तु मानवजाति का दुर्भाग्य यह है कि इस स्तम्भ के उन्मूलन के लिये 'पञ्चांगित आर्यसमाजियों की सैन्य खड़ी हुई है। जिस प्रकार 'पाम को चमू धर्या दसकम्बर' उसी प्रकार अनेक मायावी लोग गैरिक वस्त्र धारण कर आर्यसमाज के ठेकेदार बने हुए हैं। आज आर्य समाज को खतरा न मुलतमानों से है न जौनियों से न बौद्धों से न पीछाधिकों से उरते खतरा है इन तथाकथित आर्यसमाजियों से। जीवन और जगत का जीवनसाथी है जिस पर देव दयानन्द ने हमारा पथ प्रदर्शन नहीं किया। क्या यह विश्व की आश्चर्यजनक घटना नहीं है कि महर्षि दयानन्द ने ज्ञात इतिहास में पहली बार ईश्वरीय ज्ञान को उद्घाटित किया? महर्षि का केवल यही करम महर्षि दयानन्द को महापुरुषों के पक्षीय आनन पर आसीन करने के लिए पर्याप्त था। विश्व के समस्त सम्प्रदाय धर्म के नाम पर हजारों वर्षों से इस्तेमाल के कुछ से कुछ को लाल करते रहे। वैदिक मार्ग को हटकर मानवजाति ने विश्व के समस्त सभ्यताओं के जल से भी आनेक आहुतियाँ दीं। क्या यह विश्व की आश्चर्यजनक घटना नहीं है कि महर्षि ने धर्म के नाम का उपयोग करने

वाले असुरों को धर्म का ज्ञान कराया? महर्षि ने 1857 की क्रांति के बाद मरणासन भारतवासियों की शिरछों में देश की आजादी

बम हैं उनके 5 प्रतिशत परमाणु बम ही सारे विश्व को मरघट बनाने के लिए पर्याप्त है। विश्व शांति के लिए तो निरस्त्रता

परिवर्तन करना होगा। आर्य धर्मों का प्रचार करना होगा। करुणा और प्रेम का सागर प्रवाहित करना होगा। विश्व के समस्त मत मतान्तरों का लक्ष्य ईश्वर प्राप्ति है परन्तु क्या महर्षि के अतिरिक्त अन्य कोई महापुरुष ईश्वर के बुद्धिसमस्त स्वरूप को प्रस्तुत कर सका? ईश्वर प्राप्ति के लिए मात्र 'पाम' या 'पिरे' महर्षि दयानन्द द्वारा प्रदर्शित मार्ग के अतिरिक्त अन्य कोई मार्ग नहीं है। जीवन और जगत के इन 'मूर्तिल' प्रश्नों से जो उत्तर महर्षि ने दिये आज उनकी व्याख्या करने का यह उचित अवसर नहीं है।

आज अज्ञान और वनस्पत उज्ज्वलता के आकाश पर मन्दरा रहा है। जब लाखों नर-नारी और बच्चे भूखमरी के शिकार हो और घारे के अभाव में करोड़ों पशु और गीए दम तोड़ रहे हो तब ईश्वर मोक्ष धर्म की बात करना क्या बेद और दयानन्द का अपमान करना नहीं है? महर्षि दयानन्द ने आर्यसमाज के 10 नियमों में एक नियम यह दिया—'ससार का उपयोग' इस समाज का मुख्य उद्देश्य है। जब तक अवाल है तब तक हमें अन्य नियमों का भूल जाना केवल इन्हीं एक नियम के प्रकाश में



युग पुरुष महर्षि दयानन्द सरस्वती

के लिये शौर्य का रक्त प्रवाहित किया और उनकी प्रेरणा से भारत माता के नीजवान बेटों ने अपने प्राणों की आहुति देकर ब्रिटिश साम्राज्य को ध्वस्त कर दिया। क्या यह आर्यसमाज की घटना प्रतीत नहीं होती? जातिवाद और अस्पृश्यता के पाताल में दी जड़ों की फूले खिलाकर रख दीं। क्या यह अकल्पनीय नहीं है? मातृ भूमि, मातृ भाषा और मातृ संस्कृति की सजीवनी से महर्षि ने मुद्रा राष्ट्र को खड़ा कर दिया। क्रान्तियों ने 19वीं सताब्दी में हिन्दी भाषा को देश की राजभाषा बनाने का अभियान चलाकर भारत की ऊर्ध्वगामी बनाया। इस मरिच्य पेदिनी दृष्टि की मुलान किस्त ऋषि से की जा सकती है। दया और आनन्द के सागर दयानन्द ने विश्वजाति का मार्ग प्रशस्त करते हुए देव का संदेश दिया—

मता भूमि पुत्रोत्त पुत्रिया

विश्वजाति मरुतल्लक परकम्पु कर्ष के सगर से नहीं हो सकती। आज विश्व के समस्त सभ्यताओं के पास पिताने परमाणु

चाहिये और

अपना सत्ता तय करना चाहिये।

क्या कहते हैं महर्षि अकाल की समस्या के समाधान के लिये। दैनिक अग्रिमार्ग ने महर्षि ने हमें प्रार्थना दी— अविमनामदमनाद्यायासे देश की भूखी जनता की जलजगति को शांत करने के लिये अर्थात् हवि को खाने के लिये मैं आदि की स्थापना करता हू। भूखी जनता के 35 करोड़ यक्षकुल्यों की अग्नि अन्न की हवि माग रही है। उन कुलों को आन देना ही सबका बड़ा यक्ष है। फिर महर्षि ने हमें सन्निधा दान सब दिये और हमने ईश्वर की प्रार्थना करते हुए कहा— अन्नम प्रजया पशुभिर्ह्यप्यर्षेयसैन्यानां नमोय स्वाहा।

हम उस अग्नि को प्रज्वलित करे जो प्राजा पशु धन धान्य तेज यश और मोक्ष—सामर्थ्य को बढ़ाये। इसी प्रकार स्वर्णि वाचन के मंत्रों में हम प्रतिदिन निम्नलिखित मंत्र का पाठ करते हैं—'इह तयोर्व ला वाचय स्वा यजमानस्य पशुत् पाहि।

हे सर्वशक्ति एक सर्वव्यापक प्राणों हग गोपयवर्षों की प्राप्ति एवं उनके अनुपयोग से सब पशुकाका की प्राप्ति के लिये आपका आभय लेते हैं आपसे यचना करते हैं। हमारी दुःख

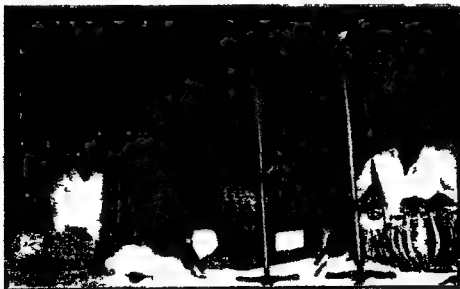
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संस्थान उच्च 'श्रवण' के पूर्व 'न्यायविधि' संस्था में आर्य समाज के संस्थापक एवं
इदम का अधिपति श्री बालगुप्त सिंह मिश्र ने उपस्थित हुए (मि. २००२)



आर्य महिला समाज आदरानगर जयपुर के प्रदायिका एन सदस्य 'श्रव' में नवी अरुण
सतीजा बाए प्रथमा पुष्पा सज्जना सुनिता बजा शकनाला अजयल वेद साहनी



अपनी स्वर सहित श्रीराजों का नमस्कार करते हुए श्री राजेंद्र मदनगर



श्रीराजों को अपने भजनों से भावविभोर करते हुए श्री परसुत्तम स्वामी



अज्ञात नगर जयपुर के उपस्थान एवं संस्थान विधि संकाय के पूर्व
श्री सुनीलदास अपनी धर्म पत्नी श्रीमती सतीजा के साथ



श्रीमती शारदा के साथ



अज्ञात नगर जयपुर के पूर्व श्री राजेंद्र मदनगर अपनी धर्म पत्नी
श्रीमती सतीजा के साथ



अज्ञात नगर के पूर्व श्री राजेंद्र मदनगर अपनी धर्म पत्नी श्रीमती शारदा के साथ
श्री अनिलदास सहित एवं पुष्पा सुनिता बजा शकनाला अजयल वेद साहनी

भारतीय संस्कृति धर्मप्रधान संस्कृति है। उसका सौंदर्यबोध कम-कम में विश्वास का दर्शन करता है। यह जीव मात्र के धर्म का आवरण करता है साथ ही प्रत्येक जीव

घटानों के पूर्ण पर अतिरिक्त विकास की कहानी यहूदों ने सचमुचे मान्य ही यह बता सकता है कि विकास की इस सीढ़ी तक जीव को अपने के लिए प्रकृति ने कितने प्रयोग और परीक्षाएँ किये। प्रकृति के लेख-जोश का ज्ञान रखने वाला मनुष्य ही यह सोच सकता है कि जीवन की एकता

[illegible]

आज एक जादूकाम के मित्रों वियत पर हमें खयाल लेने होनी कि इन समूहों द्वारा जारी गये वर्ष के कार्यक्रमों पर पर अवगत होने क्योंकि यदि वह सम्पूर्ण है जो वेकस और अन्तर्गत की ओर से आ सकता है।

विद्यार्थ्यांच्या विकासासाठी

वैदिक ज्ञान का अन्तर्भाव होना आवश्यक है।

[illegible][illegible][illegible][illegible][illegible][illegible]

姓名: 王 强 性别: 男 年龄: 35 岁 籍贯: 山东 烟台 职业: 教师

वैदिक काल में अश्वमेध यज्ञ का अर्थ अश्वों के चलाए गए यज्ञ था।

जोधपुर में राष्ट्र उत्थान यज्ञ— कुछ श्रिक्रियाँ

आर्य वीरदल की साहसिक यात्रा का प्रेरणादायक इतिहास

विश्व को आर्य बनाना ही आर्य समाज का लक्ष्य—स्वामी अग्निवेश

राजस्थान प्रान्त के जोधपुर की एक छोटी सी बस्ती पाबपुर आदिवासी समाज जाती जिन्का मूल काम जंगलों में घूमकर बनस्पति पशु पक्षिदि से स्थल का पोषण करना ही। यहा सबन छिन्की सस्कृति है या इसी तरह अनेक स्र्दियों आदि से प्रसिद्ध लोग पिछले 100 वर्षों से भी अधिक समय से निवास करते रहे हैं। लगभग 27 वर्ष पूर्व यहा स्व मदनसिंह आर्य द्वारा आर्यवीर दल अर्जुन शाखा की स्थापना की गई और महर्षि दयानन्द द्वारा स्थापित वैदिक धर्म के मार्ग को अपनाये की वरमत्ता आर्य की। थोडे दिन बाद ही यहा आर्यसमाज की भी स्थापना हुई।

आर्य वीरदल राजस्थान के सत्पापक स्व मदनसिंह आर्य सबसे पहले स्वामी अग्निवेश जी को लेकर यहा पाबपुरा आये। उन्होने यहा आर्य समाज के माध्यम से उस समय मृत्यु भोज तथा नव्यावरी के विरुद्ध सघर्षपूर्ण युक्तियों के साथ वहा के गाववासियों को भी सम्बोधित किया और उन्होंने शिक्षा ग्रहण करने धुप्रान शरव गन्धन यादि मोहकन कार्य बनने की प्रेरणा दी। उन्होने केन्द्र स्वील्ले मुकुटभाब तथा क्रीडारस हानिकारक रीतिरिवाज बदलने की बात करते हुए जीवन के वैदिक सत्कर्तों के अनुसर चलने का उपदेश दिया। जब से यहा के निवासी एव आर्य युक्तों ने उनकी दी गई शिक्षा एव प्रवचन पर मन वचन एव कर्म से लगाते हुए पिछले 27 वर्षों से लगभग 10000 आबादी वाले नायक समाज से मुक्तुभाब को समुल समापन कर दिया। सत्पा खोरी पर प्रतिवन्द लगाने हुए सामाजिक दण्डालक प्रक्रिया आरम्भ की। बम्बों को पयान तिरनने लगे और यहा भी सामाजिक आर्थिक एव धार्मिक दसा सुधरने लगी।

पाबपुरा हलाकि आदिवासी गरीब शोषित वर्ग अनुसुचित जाति जनजाति के लगभग सत्प्रतिशत निवासियों की बस्ती है किन्तु यहा के लोग हीन भावना के शिकार कभी नहीं हुए और न ही कभी उनके दिलत होने का भय उन्हें लगा क्योंकि स्व मदनसिंह एव स्वामी अग्निवेश के मार्गदर्शन ने उन्हें साहसी बना दिया था तथा वैदिक मार्ग ने उनको आत्मबल की वृद्धि कर दी थी। स्वामी जी द्वारा वर्तमान समय में पूर विश्व में सभी सत्प्रदायी में धर्म प्रचार अर्थात धर्म की अचरती धारणा क्या है? किन

राष्ट्र सत्प्रदाय चल सके हैं ऐसे कार्यक्रमों से प्रेरणा लेकर उन्हें 'भारत निगम महासिवाय' के तहत मिल के छोले कार्यक्रम की कड़ी में राष्ट्र उत्थान यज्ञ के नाम से सार्वजनिक सत्पावना एव देश के विगढते धार्मिक राजनीतिक सामाजिक एव आर्थिक हालात पर चिन्तन एव कार्य की दिशा निश्चिन्ता करने हेतु दिनांक 19.10.2002 को कार्यक्रम तय किया गया। पाबपुर निवासि आर्य समाज के अनेक प्रधान रहे एव आर्य सत्पन्न के अनेक सम्पत्तियों सती प्रधा के विरुद्ध दिल्ली से वैदिकता परचाया एव देश में भागीदारी निगाने वाले मवरलाल नायक ने ही उपरुक्त कार्यक्रम की सारेखा तैयार की और गुलाबचन्द झाँ (जोटे भ्राता) भी सत्पावल भेला एव के महेन्द्र मधुर के आर्थिक सत्पाव के आत्मावतन पर स्वामी जी को कोन पर

बताया कि पाबपुरावासी पाबपुर में सत्प्र उत्थान यज्ञ का आयोजन करना चाहते हैं। स्वामी ने मवरलाल नायक को श्री सत्पसिंह आर्य उपप्रधान आर्य प्रतिनिधि सत्पा राज से सम्पर्क कर कार्यक्रम निवारित करने का निर्देश दिया। स्वामी जी के निर्देशानुसार श्रीरामसिंह जी के विना निर्देश में पाबपुर पचावल सतिगि एव आर्यसत्पन्न पाबपुर की बैठक में राष्ट्र उत्थान यज्ञ करने का प्रस्ताव पारित कर कार्य आरम्भ किया एव आज

दयानन्द की जयघोष से यातावरण को गुजवावण करते हुए उन्हे एक रैली के रूप में स्वागत के साथ पाबपुरा में लेकर आये। स्वामी एव सत्पवेदी जी के उदरने की व्यवस्था श्री गुलाबचंद आर्य के निवास 'गंगाकुटीर' में की गई थी।

साय 4 बजे राष्ट्र उत्थान अग्निहोत्र कार्यक्रम आरम्भ हुआ। अग्निहोत्र के ब्रह्मा आर्य समाज जोधपुर के प्रधान हनुमानप्रसाद गौड थे जबकि आर्य समाज पाबपुरा के पुराहित सुखदेव आर्य के पीरोहिष्ठ में आर्य



पाबपुरा आर्य समाज के प्रधान श्री मवरलाल नायक स्वामी अग्निवेश जी का सम्मान करते हुए



पाबपुरा आर्य समाज के अध्यक्ष श्री ओमप्रकाश आर्य श्री सत्पवत सामवेदी का सम्मान करते हुए

ही के दिन राज प्रदेश पूर्व सैनिक काग्रेस के प्रदेशाध्यक्ष के महेन्द्र मधुर के द्वारा पूर्व सैनिक सगठन एव आर्य वीर दल राज के साथ मिलकर कार्य करने की घोषणा की गई।

राष्ट्र उत्थान रैली दिनांक 13.10.02 को आय पावलत सत्पावना के अध्यक्ष श्री रामसिंह आर्य द्वारा ओझ का झण्डा दिखा कर रैली को रवाना किया। रैली जोधपुर के विभिन्न क्षेत्रों से गुजरती हुई 150 आर्यवीरों की 60 गुप्तिया एव दो कारों तथा एक टैक्सी सहित यह सत्पावना सदरे पत्र बाटती हुई महर्षि दयानन्द स्मृति भवन से आरम्भ होकर पुन वीर समाज हुई। रैली का नेतृत्व मवरलाल नायक आर्यवीर दल जोधपुर के अध्यक्ष श्री गणपतिसिंह पवार प सत्पालक नारायणसिंह आर्य ने किया।

पूरे कार्यक्रम की व्यवस्था राष्ट्र उत्थान यज्ञ सतिगि के सरोजक मवरलाल नायक की देखरेख में सतिगि श्री पुनसिंह मेखावाल पचावल सतिगि के अध्यक्ष ओमप्रकाश आर्य पचाग

के मुख्य यजमान श्री राजेन्द्रसिंह सोलंकी अध्यक्ष नारा प्रसाद न्यास जोधपुर थे जबकि विशेष यजमानने ने जोधपुर के विधायक श्री गुलाब काबरा अन्य पिछड़ा वर्ग आयोग राज के अध्यक्ष श्री विजयसिंह राज प्रदेश पूर्व सैनिक काग्रेस के अध्यक्ष क महेन्द्र मधुर आर्य प्रतिनिधि समा राज के उच प्रधान श्रीराजसिंह आर्य सत्तर खतीबा काजी मोहम्मद अयूब असाी नायवल हज केलेकेयर सोसावदी के अध्यक्ष हाजी हासम का मारवाड मुस्लिम एम्प्लोयेमनल सोसावदी के सत्तर महासभा जोधपुर के सत्तर हाजी अजीत खा जीनी सत्पावना सतिगि के अध्यक्ष जनाब आजन जोधपुरी आर्य वीर दल जोधपुर के अध्यक्ष श्री गणपतिसिंह पवार तथा सत्पालक नारायणसिंह आर्य वी।

इसके परवात राष्ट्र उत्थान यज्ञ के प्रणेता एव मुख्य यजता स्वामी अग्निवेश जी जब अपना भाषण प्रारम्भ किया तो हलाक आर्य वीरों के उत्प्लास और उमगा का अजीब प्रभाव था। हलाक नयुक्त खडे हो गए और वैदिक धर्म की जय धुन गुहक महर्षि

दयानन्द की जय क्रांति शिरोधार्य प रामप्रसाद बिस्मिल की जय देश के हाहीदों की जय आर्य समाज जि दामाद ओझ का झण्डा कैसा खडे के नारे से सवती और आकाश गुजाने लगे। बड़ी मुश्किल से उन्हे नारे लगाने से रोक गया और तब स्वामी का भाषण प्रारम्भ हो सत्त।

स्वामी जी ने कहा कि आज धर्म की धारणा गलत हो गई है। पूजा उपवास योग और भक्ति ने पहावध का रूप ले लिया है। विजयदसमी पर हिन्दू रावण का मुकुल जलाकर खुश हो जमते हैं किन्तु पास ही खडे असली रावण उगरी है इन मूर्खता पर हस्ते हैं क्योंकि उस रावण ने तो एक सीता का हरण किया, किन्तु आज के ये रावण-देवता की हजमती सीतावों पर अजीब



स्वामीअग्निवेश जी श्री सत्पवत सामवेदी एव श्री आरक सामेदी का अनेक आर्यवीरों द्वारा जोधपुर रेलवे स्टेशन पर स्वागत करते हुए



राष्ट्र उत्थान यज्ञ सत्पवेदी में समा को सम्बोधित करते हुए श्री सत्पालक सामवेदी साथ में बैठे स्वामी अग्निवेश जी

पाबपुरा जी विहाल विरासतम जी उमन सला जी रामवेदी जी सत्पवेदी सतिगि मवरलाल खल्लू प्रमुन सितोसिंह श्रीकृष्णजी मदनजी हयवाल सतनजी एव दीपक जी द्वारा की जा रही थी। आर्य समाज के प्रधान श्री मवरलाल आर्य सत्री नैसिद्ध आर्य वैदिकमन आर्य मवरलाल आर्य सितोसिंधा रोहनलाल आर्य जयनारायण आर्य सुखदेव आर्य गणेश आर्य रेखावल सतिगि सत्को आर्यवीर व्यवस्था में लगे रहे।

19.10.02 को ब्रत विस्मिन्धकत आर्य सत्पवेदी स्वामी अग्निवेश जी एव आर्य प्रतिनिधि समा के कार्यवाहक प्रधान श्री सत्पालक सामवेदी जी के जोधपुर पशुमने पर रीकनों आर्यवीरों ने ओझ की पतकरा हाथ में लिए आर्य-सत्पन्न के नरते से लम्बे महर्षि

बडा खतरा साम्प्रदायिकता है। यह दुख की बात है कि आर्यसमाज के अनुयायी भी इन साम्प्रदायिकता ताकनों की सेना में खडे हो गए हैं। आर्य समाज की कमजोरी के कारण ही साम्प्रदायिकता के पिशाच ने अपना सिर उठाया हुआ है और हमारी बस्ती खुर से लथ-पथ हो रही है।

स्वामी जी ने कहा कि आज धर्म की धारणा गलत हो गई है। पूजा उपवास योग और भक्ति ने पहावध का रूप ले लिया है। विजयदसमी पर हिन्दू रावण का मुकुल जलाकर खुश हो जमते हैं किन्तु पास ही खडे असली रावण उगरी है इन मूर्खता पर हस्ते हैं क्योंकि उस रावण ने तो एक सीता का हरण किया, किन्तु आज के ये रावण-देवता की हजमती सीतावों पर अजीब

[illegible]

समार्थ नीति

पृष्ठ 2 अंक 45 21 नवम्बर 2002 मूल्य एक प्रति 3 रुपये आंक पत्रियन सञ्चालक RJ-2837/2001 वार्षिक मूल्य 75 रुपये

काश्मीर में सूनी दरिंदों के रहनुमा मुफ्ती मोहम्मद सईद का राज्याभिषेक घरती का स्वर्ग फिर बेकसूर लोगों और बच्चों के खून से लाल होगा

जयपुर 20 नवम्बर। काश्मीर में चुनाव के बाद फारुख अन्दुल्ला की गणजय पर काश्मीर की जनता ने जबरन मनमा और चुनाव के नतीजों को लोकतन्त्र की विजय और जनता की आकांक्षाओं के अनुसूच माना परन्तु मुफ्ती की ताजपोशी के बाद जनता की खुशियों पर तुल्यारण्य हो गया। उस दिन काश्मीर की जनता को यह महसूस हुआ कि मुफ्ती की ताजपोशी प्रचन्न रूप से आतंकवादियों की ताजपोशी थी।

मुफ्ती पर आतंकवादियों के साथ मिलीभगत का आरोप लगाया रहा है। मुफ्ती की बेटी रुबिया सईद को आतंकवादियों द्वारा बन्धक बनाया और इसके बदले सूनी दरिंदों को छोड़ना जनता की निगाहों में मुफ्ती की घात मानी जाती है। भारतवर्ष के इतिहास में यह एक राष्ट्रीय हर्म की घटना थी जिसने विश्व ने दीर राष्ट्र की कार्यवाही की अभिव्यक्ति माना। भारत सरकार ने बैरनी से राष्ट्र की अस्मिता को कुचलकर मुफ्ती की बेटी को बचाने का अक्षय्य अपराध किया। देश की अस्मिता की रक्षा के लिये कोई भी स्वाभिमान राष्ट्र अपनी समस्त जनता की खुशियों देने के लिये तैयार रहता है।

कारगिल युद्ध में भारत का सैकड़ों नीजयाना ने देश की सफरद की रक्षा के लिये अपनी जवानों की आहुति दे दी। किन्तु नकाराओं की मोद सूनी हो गई किन्तु बेटीयों का चुलगा लुप्त गया परन्तु मुफ्ती की बेटी की रक्षा के लिये भारत सरकार ने भारत की प्रविष्टि को बचा पर लगा दिया। रुबिया के बदले जिन लुखार दरिंदों को छोड़ा गया उसी से एक पिशाच ने नेपाल से भारतीय विमान का अपहरण किया था और अफगानिस्तान के हवाई अड्डे पर भारत माता की एक नवविश्विस्त बेटी के पति का उसकी श्रावों के सामने गला काट दिया। भारत माता की इस भिष्टि का आज तक भी इस असहाय हावसे दो घुटका नहीं मिला। आज तक भी उसके आसू नहीं बने हैं और सूनी आवां से अतीव आकाश की ओर निशारी रहती है। वह शिष्टि हो गई है। भारतवासीयों को पुस्तु पर पानी में डूब गये की अनुमति उस दिन हुई जब विमान अपहरणकर्ता सूनी दरिंदों के आदेश पर भारत के आकाश में अस्मितासिंह इसाफिस्त के दुश्मनों को जेल से निकालकर ससमान अपने साथ अफगानिस्तान विहाई देने गए। उस दिन हमारे राष्ट्र का फिर धन से डूब गया।

मुफ्ती मोहम्मद सईद ने चुनाव के समय अपने घोषणा पत्र में प्रतिज्ञा की थी कि यदि उनकी पार्टी सत्ता में आई तो उग्रवादियों को छोड़ दिया जाएगा। इसी घोषणा पत्र से उत्तर्हित

होकर उग्रवादियों ने मुफ्ती का साथ दिया और वह काश्मीर के मुख्यमन्त्री बनने में सफल हुए यद्यपि उनके दल के विधायकों की सख्त नेतृत्व कार्यस और कांग्रेस के विधायकों से भी कम



मुख्यमन्त्री बनने के बाद मुख्यमन्त्री बनने की कोई खुशी नहीं है—सिर काटो के ताज से झुका हुआ है

थी। कांग्रेस के नेता गुलाम-नबी आजाद को मुख्यमन्त्री नहीं बनने दिया गया क्योंकि उन्होंने उग्रवादियों के सफाए की मतदाताओं के सामने कसम खाई थी। गुलाम-नबी आजाद की इसी कसम पर विश्वास करके जम्मू क्षेत्र में कांग्रेस के 16 प्रत्याशियों को विजयी बनाया और भाजपा का केवल एक प्रत्याशी ही विधानसभा जाने में सफल हुआ।

वैप। काश्मीर की जनता उग्रवादियों को छोड़ने के पक्ष में है?

मुफ्ती गिब कहते हैं कि वे अपनी पार्टी के घोषणा पत्र के अनुसार उग्रवादियों को छोड़ने के लिये मजबूर हैं परन्तु हम पूछना चाहते हैं कि क्या काश्मीर की जनता ने उन्हें उग्रवादियों को छोड़ने का जनादेश दिया है? यद्यपि फारुख अन्दुल्ला चुनाव हार गये परन्तु काश्मीर में सर्वाधिक मत नेतृत्वन कांग्रेस को मिले हैं। इसके बाद मतदाताओं ने कांग्रेस को तस्वीह दी है जिसने उग्रवादियों के सफाए की घोषणा करके घोर मन धन।

मुफ्ती साहब का यह तर्क भी निराधार है कि उन्हें अपनी पार्टी के घोषणा पत्र के अनुसार उग्रवादियों को छोड़ना ही पड़ेगा। यदि मुफ्ती साहब अन्य दलों से गठबन्धन किया बिना सरकार बनाने पर उनके तर्कों में कोई दम होता। अब मुफ्ती साहब यह कह सकते हैं कि गठबन्धन की मजबूरियों के कारण उग्रवादियों को रिक्त नहीं किया जा सकता। जब काश्मीर में भी

की भी को स्पष्ट बहुमत मिलेगा तब उग्रवादियों को छोड़ दिया जाएगा। भाजपा ने भी तो अपने घोषणा पत्र में तम निरु निर्माण और कामगम सिविल कोड का वचन दिया था परन्तु आज भाजपा साफ कहती है कि

गठबन्धन की सरकारों के कारण वे अपने मुद्दों को अमली जामा नहीं पहना सकते। जब भाजपा जैसी जितदी हिन्दुत्व वादी पार्टी अपने महत्वपूर्ण मुद्दों को तिलाजलि दे सकती है तो मुफ्ती साहब को उग्रवादियों को छोड़ने के मुद्दों को तिलाजलि देने में क्या शिचक है?

इसके अतिरिक्त मुफ्ती साहब को जम्मू और लद्दाख तो क्या काश्मीर घाटी में भी बहुमत नहीं मिला है।

उग्रवादियों को छोड़ना देशद्रोह
आखिर मुफ्ती साहब को उग्रवादियों को छोड़ने से क्या मिला? यदि उग्रवादियों से नारी बरतने पर या बातचीत के जरिये नसला हल करने में कोई मदद मिलती तो सारा राष्ट्र इनका सम्भन कस्ता। मुफ्ती ने मुख्यमन्त्री बनने की जम्मू काश्मीर सिक्खन फट के अलगाववादी नेता यासीन मलिक को रिहा कर दिया। यासीन को इस साल

पीटा क तहत गिरफ्तार किया गया था। यासीन का काम उग्रवादियों को आर्थिक सहायता देना है। यासीन को नाटकीय ढंग से सहायतादाता सम्मेलन के बाद गिरफ्तार किया गया था। एक दम्पति हवाला के माध्यम से यासीन के लिये एक लाख डॉलर लेकर आया था। यासीन इसी कले बन् के जरिये उग्रवाद की आग को बढ़ाकर काश्मीर के बेकसूर लोगों और बच्चों की हत्या कावता है और स्वयं ऐश्याशी कोता है। उसकी बीमारी पर देश-विदेश में लाखों रुपया इसी कले धन से व्यय किया जाता है तस्वीर गिरफ्तारी से पता चला कि यह कले धन भारत में भेजकर उग्रवाद की नारकीय अग्नि बढ़ाने वाले देश दोही खीन है? पर अब तो जेल से रिहा होकर यह पिशाच काश्मीर की सड़कों पर यहकता फिरता है। क्या कले धन पर ऐश्याशी करने वाले नीत के सीमागत को जेल से छोड़ना देश द्रोह नहीं है? कानून की अवज्ञा करने का डक से प्रधानमन्त्री और राष्ट्रपति को भी नहीं है तब यासीन को किस कानून के तहत कानून की अवज्ञा करने की खुली घुट दी गई?

देशद्रोही यासीन मलिक

मुफ्ती साहब को पलतफुर्ती है कि वे प्रेम से या नरम नीति से बर्माच जोहादियों का हृदय परिवर्तन कर सकते हैं। अलगाववाद इन पिशाचों का स्वा है। अलगाववाद के नाम पर

पर अफसोस की बात यह है कि आज अर्थसमन्वय की सफलता में कोई भ्रमिका नहीं है। राष्ट्र की समस्त समस्याएँ पर उसका कोई विधान नहीं है। यदि आर्थिक विकास के 10 हजार प्रतिनिधि प्रतिवर्ष राष्ट्र को नई दिशा देने के लिये एकत्रित हो और प्रस्ताव पारित करके सरकारों की देखरिता एवं जनता में कार्य करने के लिये बाध्य करने तो राष्ट्र को विनाश से बचाया जा सकता है परन्तु आज समन्वय को अपने झगड़ों की ही परतों में डाल रहे हैं।

स्वामी श्रद्धानन्द ने जी हस्त पर मुसलमानों को मारने की भी अनुमति नहीं दी और दुमने दखानन्द और जीहस्त को मार दिया।

आर्य समाज

बाहरी रिंग रोड विकासपुरी नईदिल्ली

21 कुण्डीय विराट गायत्री महायज्ञ

दिव्य वेद कथा का समापन

मन्त्री सतीश कुमार आर्य

पदगनाभ खाई
मन्त्री

आर्य परिवार संस्था

स्पष्टीकरण

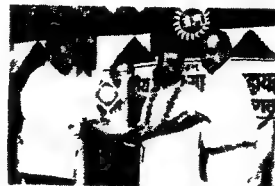
यह पूर्णतः असत्य है। दलित बहिष्कार में एक भी आर्य समाजी नहीं था अपितु श्री सत्यप्रताप सामवेदी अपने अनेक कार्यकर्ताओं के साथ दलितों की यात्रा में शामिल हुए जिसका विवरण आर्य नीति में दिया जा चुका है।

श्री राम कृष्ण आर्य

यह पूर्णतः असत्य है। दलित बहिष्कार में एक भी आर्य समाजी नहीं था अपितु श्री सत्यप्रताप सामवेदी अपने अनेक कार्यकर्ताओं के साथ दलितों की यात्रा में शामिल हुए जिसका विवरण आर्य नीति में दिया जा चुका है।

उल्लासमय वातावरण मे सम्पन्न

नई दिल्ली। विश्व शांति एवं मानव कल्याण हेतु आर्य समाज एवं वैदिक यज्ञ समिति विकास कुंज के तत्वावधान में आयोजित 21 कुण्डीय विराट् मायत्री महायज्ञ वैदिक विद्वान् आचार्य चन्द्रशेखर शास्त्री जी के ब्रह्मरूप में सेन्ट्रल पार्क विकास कुंज में उल्लासमय वातावरण में सम्पन्न हुआ।



महर्षि के अवसर पर आचार्य चन्द्रसेखर शास्त्री जी को स्मृति चिह्न देकर सम्मानित करते हुए श्री विद्यासागर मागिया श्री प्रेम भटिया हैं। रमा शर्मा एवं श्री हरीश ओबराय

हस्त अवसर पर धार्मिक जगत के महान प्रवक्ता आचार्य
मन्दरसेखर मास्त्री जी ने विराट जनसमूह को सम्बोधित करते
हुए कहा कि संसार में ऐसेपुनरारंभ का सबसे बड़ा उदाहरण यज्ञ
है। मनुष्य दूसरों का भला करके सुनाता व जलताता है।
अच्छे काम करने इतराता है। जिससे वैर द्वेष हो उसका भला
करके भी सोच भी नहीं सकता परन्तु हवन का लाभ सबको
पहचता है मित्र को चाहे शत्रु।

वेदज्ञ विद्वान् आचार्य श्री ने भद्रानां को सम्भावित करते हुए कहा कि यज्ञकुण्ड की अग्नि ने घृत की आहुति से प्रचार उभरता है। ऊर्जा तैयार होती है जिसमें अमृत वायु को बुझ करने में तथा शरीर और मन के तनावों को भी बुझ करने का अद्भुत सामर्थ्य है। यज्ञ से पर्यावरण शुद्ध पुष्ट एवं सुगन्धित होता है। यज्ञ मानव को दानशील बनाता है तथा इससे मनुष्य सर्वहित में अपना हित सम्पन्न करता है।

मुख्य यजनमान श्रीमती भारती तनेजा श्री तुषारकान्त सेठ
श्रीमती निर्मला सेठ श्री हरीश ओबराय आदि को आचार्य श्री
चन्द्रशेखर जी के कर कर्मलों से स्मृति निष्ठ प्रदान किया गया।
इस अवसर पर अनेक लोगों ने भासाहर एव नाटक पदार्थों को
छेड़ने का सकल्य लिया। हजारों लोगों ने यज्ञ समारोह में
प्रसन्नचित होकर शिखर शक्ति एव मान्य कल्याण हेतु पुत्र समग्री
आहुति प्रदान की।

वैदिक विद्वान् आचार्य चन्द्रसेखर शास्त्री जी द्वारा मान्य कल्याण हेतु किये हुए कार्यों को देखते हुए स्मृति चिन्ह देकर उन्हें सम्मानित किया गया। डॉ. रमा शर्मा को त्रैस्तिकारी भाषण एवं भजन समारोह श्री नरेन्द्र आर्य के सुन्दर भजन हुए। इस यज्ञ में प्रत्येक समुदाय के लोग उपस्थित थे। विकास कुज में पहली बार 21 कुम्भीय यज्ञ का आयोजन था जिसकी मूक्ति-मूक्ति प्रस्ताव शो रही है।

इस अवसर पर श्री यशपाल आर्य प्रदेश मंत्री भाजपा श्री प्रशोक चुगेजा उपप्रधान भारत विकास परिषद श्री कुलभूषण कपूर नेशनल बुक ट्रस्ट श्री वी एस नागिया समाजसेवी डॉ. पुष्पलता वर्मा प्रज्ञा आर्य समाज बाढ़री शिग रोड विकासपुरी श्री वैजय आर्य आदि गणमान्य लोग उपस्थित थे। कार्यक्रम के अध्यक्ष श्रीमती घवल किशु समाज प्रधान डॉ. पुष्पलता ने सभी का आभार प्रकट किया।

कार्यक्रम के अन्त में नागिया परिवार द्वारा दैनिक यज्ञ यस्त्रि नामक पुस्तक का वितरण किया गया तथा हजारों लोगों ने ऋषि लम्ब ब्राह्मण किया।

हैं पुष्पलता

१ सुख प्राप्ति का साधन है-शिव संकल्प

नहीं दिखती। यदि हम जीवन में सुखी होना चाहते हैं और हमारा मन शांत हो, तो हमें अपने मन की शिव सत्कर्म मन प्रदान होना। हमें में उनके साथ एक साथ मुक्ति की शिव प्रसाद शिव सत्कर्मों अर्थात् कर्मकाण्डी विचारों से मुक्त हो। हम मुक्तिप्राप्तियों को अपने के लिए यह आवश्यक है, शिव हम को अपने मन में न अपने हैं। ज्ञान विशार प्रकाश ही परमलाल क्यूरिय ने प्रमुख श्रोताओं के सामने रखे। उन्होंने एक दिन कहा कथन और योगदान। वे हम जागते सत्य ही हैं। तोते सत्य की वही का नहीं चलता जाना है किन्तु सत्य प्रकाश से ही हमें में किया जा सकता है। हम तो सत्कर्म कर्मकाण्डी होता है, किन्तु हमें सत्कर्म से छेकना सत्कर्मप्रदाता है। सत्कर्म प्रसादा ने दृष्टा का भी समर्थन है अर्थात् अपने कर्मों में दृष्टा के साथ तालमेल है। दुर्गुल होकर हम अपने कर्मों को प्रसाद नहीं कर सकते। शिव और अशिव पहचान विवेक बुद्धि से सम्पन्न है। चरोकरों के सभी कार्य सम्पन्न शिव सत्कर्मों से हो जाता है। परमेश्वर से बह और हमें नहीं है और परमेश्वर से बहाने नहीं है। हमें सभी जगहों का सम्पन्न शिव सत्कर्म में हो जाता है तथा यही सत्य मुक्त ही हमें में सम्पन्न है। शीतली साज नदी की योगेश्वर इदानीं भी विचार कार्य की सम्पन्न प्रसाद शिव आदि की संकल्पों का विधान प्रकाश ने सम्पन्न किया। परमेश्वर का सम्पन्न सम्पन्न कार्य सम्पन्न के नदी की परमेश्वर प्रसाद ने किया।

जयदीप चन्द्र मुलाटी
मंत्री

आर्य सम्राज मंदिर, बी-२,
जनकपुरी नई दिल्ली

100

राष्ट्र भाषा हिन्दी तथा भारतीय भाषायें, विज्ञान

दगगलब्द मारु, भीलवाडा

वैदिक ज्ञान प्रतियोमिता सम्पन्न

वैदिक साहित्य का प्रचार हेतु आर्य समाज गीलावर द्वारा वैदिक भाषा प्रयोगिकों को आमंत्रित कर आचरण के वर्णनों में किया गया जिसमें ३००००० रूपय के १५ विद्यालयों के ८०० छात्रों में सामान्य की जीमनी एवं वार्षिक साहित्य को पढ़कर शिक्षित एवं नौवीक परमाणु में प्राप्त किया। प्रत्येक विद्यार्थन को प्रथम शिक्षण के लिए सहायता प्रदान करने वाले छात्रों को सम्मान प्रमाण एवं प्रमाण प्रदान सह 704 / 801 / 301 रुपये देकर सम्मानित किया गया। ये विद्यार्थी १४ से २० वर्ष की आयु के थे। इसके साथ ही गीलावर ने कहा कि सभी नागरिक एवं उच्च नामिका विद्यार्थियों हेतु पुस्तकालयों में सामान्य प्राप्ति की एक-एक प्रति नि शुल्क दी गई है। इसी प्रकार माया से प्रेरित हो आर्य समाज द्वारा आयोजित समारोह प्रकाश पत्राचार प्रतियोगिता हेतु प्रतीयन में ५० प्रतिभारी की चुने दी गई है। साथ ही ६० प्रतिभारी चुन लिये हैं। प्रकाश पत्र की जा रही है।

प्रधान
जिला उप प्रतिनिधि समा भीलवाड़ा

आर्य समाज मंदिर

आर्यसमाज मली,माधी बनर,दिल्ली-3।

भल्य वेद प्रचार सप्ताह सम्पन्न

आर्य समाज गांधी नगर में एक सप्ताह का भव्य वेद प्रचार कार्यक्रम रविवार 22.08.2002 को यज्ञ की पूर्णाहुति के साथ सम्पन्न हुआ।

16 09 2002 से प्रारम्भ हुए इस वेद प्रचार सप्ताह में प्रातः ऋग्वेद यज्ञ एवं सायं श्री सत्यपाल जी के भजन तथा आचार्य अशिलेश्वर जी के प्रवचन हुए। पूरे सप्ताह आर्य समाज का प्राण आर्य जनों से भरा रहा। सत्तिकालीन कथा में हजारों सार्वजनिक ने निरपेक्षरि कथा का श्रवण कर अपने जीवन को सार्थक बनाने का प्रयास किया।

शुक्रवार 22.08.2002 को समापन समारोह में भी आर्यजन्तों ने कृष्णकर श्रद्धा के साथ यज्ञ में आहुति देकर अपने जीवन को सफल बनाया। इस अवसर पर पूज्य स्वामी स्वस्वानन्द जी ने दक्षारोहण किया एवं सैं नोहेल वेदाङ्गकार का विशेष व्याख्यान हुआ।

इस वर्ष का आर्य ज्योतिष सम्मान श्री रमेश कुमार मल्होत्रा जी को दिया गया। इस कार्यक्रम में समाज के सभी अधिकारियों एवं सदस्यों ने तन-मन-धन से सहयोग देकर कार्यक्रम को सफल बनाने में सहयोग दिया। सभी विद्वानों ने अधिकारियों तथा सदस्यों की कार्यक्रम सफलता से सम्पन्न होने की भूरि-भूरि प्रशंसा की।

शिवशंकर गुप्ता
मंत्री

इस देख बच बचा आगेकर होता
 कि अतएव समाज के अनेक अधि-
 स्वाध्यायी के बीपी (पत्नी) बच्चे आये
 समाज में। आये लोक कहीं आये
 पूजापात्र में पर जाते। है १-५-४
 १०१/मित्रों से प्रसूता कि आसकी ४
 १०१/पत्नी आये समाज में कये नहीं
 आती। एक ने कहा मैं उसे जबरदस्ती
 लौटकर ले ला रही समाज। भिने
 उसे किन्ती बार कहा कि पसन्द नहीं
 आती वह पसन्द की महिलाओं के
 समाज सम्मिलित में जाती है। दूसरे ने
 कहा क्या कर बहुत समाज है
 फिर भी आती पसन्द को मरिद में
 जाती है। तीसरे ने बताया कि मुझसे
 नहीं। चौथे ने स्पष्ट कहा जो तो
 अर्ध समाज के नाम से ही किन्ती
 है। जब मैं ज्यादा जोर देकर प्रसूता
 हो चुका कह देते हैं कि अपना

कहना मान जाये तो आप समझाकर देख लें।

मैं दो तीन अधिकारियों के घर जाऊँगा के निमित्त गया तो उनकी श्रीमती से पूछूँ आप आर्य समाज के सस्तर मे क्या नहीं आती? आर्य समाज से कुछ नक़्क़ात या नज़्जुज़ी है? उन्होंने प्रेम से कहा नहीं ऐसा कुछ नहीं है। फिर न आने का क्या कारण है? आपकी गर्ज होना चाहिए कि आपको प्रतिद्वन्द्वी अर्य समाज में प्रवेश का मनी है। अच्छे आर्य समाज मेअन कहिये। श्रीमती ने यह कहकर पीछा फुलाना कि मैं सोचकर बताऊँगी। मैं अनेक वर्षों से ब्रत खोजे मैं जगत पढ़ा हूँ।

यका कारण है जो पानी पति की अनुमति नहीं है अर्थात् साथ मिलकर नहीं चलती या कहना नहीं मंजूर। दीर्घ अनुभव से पता चला कि पति की उपेक्षापूर्ण (लापरवाही) और झुटिया इसका कारण है। निम्नलिखित कुछ तथ्यों पर ध्यान दीजिये-

1 पति पत्नी की आवश्यकता और इच्छा की ओर ध्यान नहीं देता है या यूँ कहो कि पूर्ति नहीं करता है।
2 पत्नी का उचित सम्मान नहीं करता है बल्कि सबके सामने खंडकृत अपमान करता रहता है।

3. पत्नी की गलती पर उसे गालियाँ देता है दुर्व्यहार करता है

4 उसके किये हुए अच्छे काम की प्रशंसा नहीं करता है बल्कि नुकसान छोटता रहता है।

5 पत्नी से सत्य को छुपाकर झूठ बोलता है। उसके सामने धूम्रपान या मद्यपान करता है। अन्य स्त्री से प्रेम करता इत्यादि।

यदि कोई सज्जन कहे कि उपर्युक्त कारणों में मेरे साथ कोई कारण नहीं घटा है फिर भी अनुसूत नहीं है। तब आपसे बोझ सत्य से काम लेना होगा घर में रहते हुए पत्नी से केवल

योगदान दे रहे हैं। आज मद्रास हिन्दी फिल्मों का सस्रवात केन्द्र बना हुआ है।

हिन्दी के बारे में भारतीय भाषाओं में गुजराती मराठी पंजाबी बंगाल आदि का नाम लिया जा सकता है। भाषा विद्वानों के अनुसार ये एक ही अग्रजत के हिन्दी रूपों से विकसित हुई हैं। देवों नाथिमान और भावक हिन्दी (हैं) नयेरा किमती। गुजराती की लिपि यद्यपि असल में हिन्दी यह देवनागरी का ही रूप है। मराठी की लिपि ही देवनागरी है। भाषा वैज्ञानिकों के अनुसार बंगाल प्राचीन देवनागरी से ही विकसित एक लिपि हैं तिब्बती जाती। अस्सामी की लिपि कुछ परिवर्तित बंगाल लिपि हैं। उड़िया की लिपि भी प्राचीन देवनागरी से ही विकसित हुई है। भाषा वैज्ञानिक यह तर्क मानते हैं कि उत्तर भारत की प्रायः लिपियाँ देवनागरी के ही रूप में ही और उनमें अव्यक्ति समानता है। देखे—राधाकृष्ण प्रकाशन नाई दिल्ली—2 द्वारा प्रकाशित भाषाविद्वानों की भूमिका (देवनागरी) शर्मा सत्कृष्ण 1968 पृष्ठ 136 139 प 357

इस प्रश्न हिन्दी तथा भारतीय भाषाओं परस्पर जुड़ी हैं। इनका परस्पर कोई विशेष नहीं है। इनका विशेष अंग्रेजी के साथ है। अंग्रेजी के कारण हिन्दी को राजभाषा का पूरा स्थानान्तरण एवं स्थान नहीं मिल पाया है। उच्च-ऊँचा प्रभावित भाषिका विकास प्रचलन प्रौद्योगिकी के कारण एवं आदि क्षेत्र में अंग्रेजी का प्रमुख जारी है। अंग्रेजी के जगह एवं भारतीय भाषाओं में भी चर्चा नहीं है। इनका भी विकास रुक गया है। विज्ञान प्रौद्योगिकी एवं पर्यटन की शिक्षा में इनका प्रयोग नहीं होता। विज्ञान भाषा वैज्ञानिकों के अनुसार दक्षिण की भाषाओं-मैलिस, तेलुगु, कन्नड़ मलयालम आदि अत्यन्त मजबूत भाषाएँ हैं। जहाँ उन्हें कुछ कोटि का भेद्य साहित्य मिलता है। (दोहें)-भाषाविज्ञान एवं भाषाशास्त्र की कथितद्वय

दिवेदी घटुघर सस्करण 1994 पृ 424-426) किन्तु आधुनिक विज्ञान चिकित्सा प्रौद्योगिकी प्रथमचन एम तकनीकी शिक्षा की दृष्टि से उनका विकास ही नहीं किया गया क्योंकि अंग्रेजी उन पर नहीं खड़ी रही। इसका वास्तविक विरोध अंग्रेजी के साथ है हिन्दी के साथ नहीं। इसी कारण पतले कर्णाटक में सरकारी काम-काज में अंग्रेजी के प्रयोग पर प्रतिबन्ध लगाया गया और बाद में तमिलनाडु में भी यही एम के सरकार द्वारा स्कूलों में तमिल को प्रधान अनुविचार किया गया।

अंग्रेजी के कारण ही हिन्दी तथा अन्य भारतीय भाषाएँ आज इस स्थिति में पहुँच गई हैं कि स्वतंत्रता के 55 वर्ष बाद भी देश में सभी क्षेत्रों में अंग्रेजी का प्रभुत्व है। देश की सी करोड़ जनता की भाषाओं को हिन्दी तथा भारतीय भाषाओं को न्यायालयों प्रशासन विज्ञान चिकित्सा आदि में कोई स्थान नहीं। हमने अपनी भाषा का विकास ही नहीं किया। हिन्दी तथा भारतीय भाषाओं को इस योग्य बनने ही नहीं दिया। (कमल)

11-11-67

[illegible]

देवराज आर्यभित्र आर्य समाज
कृष्णनगर दिल्ली ५१

॥ अने ३म् ॥

सुखं वदन्तो विश्वमार्यम्

આપાર્ય નીપણ્વિ

पृष्ठ - 2

अंक - ५६

०८ दिसम्बर, २००३

मूल्य एक रु

३ रुपये

डाक पजियन सख्या RJ-3837/2001

वार्षिक मूल्य 78रुपये

बर्बर बलात्कारियों की बाहुओं में तड़पती अबलायें
मातृदेवो भव की अन्त्येष्टि

—सत्यव्रत सामवेदी

जयपुर 7 दिसम्बर। सीता द्रौपदी गार्गी अपाला घोषा सावित्री, मदालता के देश में बर्बर बलात्कारियों का वर्चस्व है। साथ देश उनकी खूनी भुजाओं के गिरफ्त में है। भारत का आकाश बलात्कारियों की बर्बरता की शिकार अबलाओं के हाहाकार, पिलाप क्रन्दन और सिसकियों से व्याप्त हो रहा है।

उस दिन साध देत वह सनावार फडकर हवागम रह गया जब कुछ मुष्कलें में मौलाना खाना मेडिकल कॉलेज के सामने पीछे पीछे सड़क से हजारों लोगों के सामने एक 20 वर्षीय अन्नक का कपड़ाकर कर सिखा और पात में ही किसी मुद्दामें ही इग्लास में ले जाकर उससे सामूहिक बलात्कार किया। उस आवासीय बहुमंजरी इमारत के पहरेदारों अपने हाथों में बन्दूकों बांधे हुए और भीमसत और धुमिल आसुरी मुकुरत को मूक देकर रहे और न जाने किस लाचारी से वे इश्कत में नहीं आए।

हीजडो से भी गया बीता समाज

आज भारत में मर्दा (गामवा) की हीजक्रे से तुलना करण हीजेकरा बड़ अमयनम है। एखे 20 तर्फीस मेंछेयनन की यजन नक आवहजन करे नमय हीजेकरा होतो तो अघरुनरुनको की नाय-नार क भुला बना होत। यदि देस में बलरुनकर को तेकरा क ठेका हीजेकरा को दे दिया जयन तो बलरुनकर को कहुकरु पय अठुल कहुकरा जय समेत है। इमन कहुकरा हीजेकरा से तो मया नीत है। क्या आपने किसी मुसलमानों की घनाला से किसी मुस्लिम लुटार को बला बलारुनकर की घनाला होत हए तुलना देत। हज मरुन में मुस्लिम कोना लुटार की ओ जमाना कयम है। किसी मुस्लिम लुटार कोन में यदि अघरुनरुन या बलारुनकर की घनाला हीजेकरा होत तो क्या के मुसलमान अघरुनरुनकरा या बलारुनकरा के टुकरे-टुकरे बना देते।

बलात्कार के प्रति हमारी प्रतिक्रिया

बसालकार की लहर सुनते हैं। हमारे लोभ का उभरण करण
 पीत कर होता है। इन एक मंत्र को करोई है—इन कमीनों को
 चौकी की छाया देनी चाहिये—इनका दिल बहलें से अलग कर
 दिख जाना चाहिये, इन पर शिकारी सुते ओहकर उनको
 नुंझा कर उनकी जीवन नीला समान कर देने चाहिये।
 आग में उनको डुबो लोहे के फलंग पर सुलाकर भार मसना
 चाहिये। परन्तु हमारे कहने से क्या होगा? इन तो निवसना
 के नीत माने के लिए मजबूर हैं।
 है नभै दिल क्या करूँ, है बहमतो दिल क्या करूँ
 मैं ने आता है कि जहाँ चोप देना चौप दू।

इस किनारे नौच लू और उस किनारे नोच लू।
एक दो का जिक्र क्या सारे के सारे नौच लू।

व्या मृत्यु दम्भ से बलाकार रुक जाएगा
समय में बलाकार की घटनाओं पर साक्ष्य उत्पन्न हो
और सत्यता में बलाकारियों को मृत्यु दम्भ देने की घटनाओं
की प्रसिद्धि को सुनने में सम्मिलित किया। जहाँ कर्मयोग-जिसने
गुजराती में बलाकार की घटनाओं को सेमराम धरित होने
वाली घटना बलाकार का प्रमाण कर दिया - ने भी बलाकारियों
को मृत्यु दम्भ देने का सम्मिलित किया परन्तु जब हमारा गुस्ता
होगा तो जाहान से या चमल चला होगा। मैं जानूँ कि हम
कुछ और भी कर सकते हैं। यदि बलाकारियों को विवेक
मृत्युदम्भ का प्रमाण कर दिया जाय तो बलाकारियों अपने
हमस की विश्वास नहीं कर सकेंगे। तब हमारे सामने
की नहीं रहे।

विश्व के समस्त भाषाशास्त्रियों की यही मानसिकता रही है कि जब अपराधी को मृत्यु दण्ड देने का निर्णय अनिवार्य हो जाता है तब वह साथ ही समस्त के समस्तसमय हमन के बहाने अपराधी का छत्र देता है। इसके अतिरिक्त बलात्कारी अन्य सत्त्व्यों को समाप्त करने के लिए हत्या कर सकता है या फिर वे किसी का अपहरण करके ब्लैक मेल कर सकता है।

तो फिर इलाज क्या है? न्यून प्रक्रिया बदली जाए?

[illegible]

हमारी सड़ी-मली न्यायप्रणाली को बदलना होगा
 यदि हम बलात्कार को रोकना चाहते हैं तो सड़ी मली
 न्याय प्रणाली—जो हमें पश्चिम से विरासत में मिली है— को
 बदलना होगा।

हमनी न्याय प्रणाली की जटिलताएं बालियन या मुयती की कोमल मानसिकता को झकझोर देती हैं, उसने सदा प्रति हान मानसिक बलात्कार ग्रस्त हो जाते हैं। उद्घातन कबन वासना के विषाक्त कीटाणुओं से भरे घुर घुर करने के काले कुत्तों के समान वकिल पुरुषों - बन्ध पुरुष उसने नगा भिजाया? जैसे किया था? कब किया था? कब किया था? तुम्हें कहां पर

लितिया था या खलंग पर? फर्क पर क्या बिछा हुआ था? गद्दा या दरी। सामूहिक बलात्कार में पहले किसने बलात्कार किया। क्या तुम्हें उस समय दर्द हुआ था? फिर वह काला कोट पहने हुए मिशाच जोर से चीखेगा—नहीं। तुम झूठ बोल रही हो। जिस नामसुख बाँटिका ने जिनदगी में वकीली ही नहीं देखा वह उस वकीली की पिछाड़ को सुनकर कांपने लगती है।

बलात्कार पर अकुश लगाने के उपाय

शिक्षा प्रणाली में परिवर्तन—शिक्षा का उद्देश्य
चरित्र निर्माण एवं नैतिकता का विकास करना है। आज हम
पाठ्यप्राप्त शिक्षा प्रणाली के गुलाम हैं जिसमें नैतिकता का कोई
स्थान नहीं है। आदर्श मानव या आदर्श परिवार आदर्श समाज
आदर्श राष्ट्र आदर्श विश्व की नींव ब्रह्मचर्य है।

महर्षि दयानन्द ने सत्यार्थ प्रकाश के तृतीय सम्मुत्पास में लिखा है 'इरातिये ये ही धन्यवादाई और कृतकृत्य हैं कि जो अपने सन्तानों को ब्रह्मचर्य उत्तम शिक्षा और विद्या से शरीर और आत्मा के पूर्ण बल को बढ़ावें।

ब्रह्मचर्य के पाता के तिरिये महर्षि ने यग्यो (अहिंसा राख्य अस्तये ब्रह्मचर्य और अपरिग्रह) दो नियमो (सौम्य सतोष) तब स्वाध्याय ईश्वर प्रणिधान को बहुत उत्तरीयों माना है। ब्रह्मचर्य में महर्षि वीर्य रक्षा को बहुत महत्व देते थे। 'देखो जिसके हस्तर में मुकुटवती वीर्य रक्षा है तब उनको आर्यगण जिक्रि बल पचाकम बल के बहुत प्रकार की प्राप्ति होती है जिसके शरीर में वीर्य नहीं होता वह मनुसक महाबुल्लशी और जिसको प्रमह योग होता है वह बुद्धि निस्तेज निर्मुद्धि उत्सह साहस धैर्य बल पचाकम आदि गुणों से रहित होकर १८ हो जाता है।

परन्तु आजादी के बाद भी हम पाश्चात्य शिक्षा प्रणाली से उसी प्रकार चिपके हैं जैसे बदर का बच्चा अपनी मरी हुई माँ से चिपका रहता है। आज पाश्चात्य शिक्षा प्रणाली की लपटें सारे राष्ट्र पर छाई हुई हैं और उसका विष फल खा कर हम मृत्यु का आलिंगन कर रहे हैं।

इसका का जोके-नजारा मुफ्त में बदनाम है
हुस-1 खुद बेतान है जलवे दिखाने के लिए

[illegible]

मैं शक्ति की प्रतिकृति लज्जा हूँ, गालीनता सिखाती हूँ।

भारतीय अर्थव्यवस्था को रेंदते अदृश्य पाँव

(महर्षि दयानन्द ने चार पुरुषार्थों के लिए ईश्वर से प्रार्थना करने का निर्देश दिया—वर्ध, अर्थ, काम और मोक्ष। आर्यसमाज ने वर्ध और मोक्ष पर तो रात दिन प्रवचन और भाषण होते रहते हैं परन्तु अर्थ और काम के प्रति उसका कोई दृष्टिकोण समाज के समक्ष नहीं है जबकि ससार अर्थ और काम के दो चक्रों पर चलता है। अर्थ नामक पुरुषार्थ का



लोककालिक समाजवाद की नींव पर रही भारतीय अर्थव्यवस्था सार्वजनिक मजदूरी पर खड़ी है। योजनाकाल में आर्थिक प्रगति पर प्रयत्नों ने देश में पूँजीवादी ढंग के समाज को ही अधिक सुदृढ़ बनाया है। वास्तव में यह चिन्ता का विषय है क्योंकि भारतीय निवेशक का एक महत्वपूर्ण

उद्देश्य देश में एक ऐसे समाज की स्थापना करना रहा है जिसमें सभी नागरिकों को आर्थिक व सामाजिक विकास के सम्मान अक्षर मिले और अर्थ व धन के वितरण की विषमताएँ समाप्त की जा सकें। लेकिन जब देश में आर्थिक सत्ता मुद्रवीकरण व्यवस्था में परिवर्तन के क्षणों में केन्द्रित हो जाती है तो इन अपने संरक्षित कर्तव्यों से दूर होते चले जाते हैं चाहे उत्पादन के विभिन्न क्षेत्रों में हमने कितनी भी ऊँचे कीर्तिनाम क्यों न स्थापित कर लिए हों।

उदासीनता, वैरोक्तक की प्रेरणा से आर्थिक व्यवसाय संपत्तियों का अधिपति हो रही है। देश में सुखे हुए अकाल से शक्ति-शक्ति मजदूरी है। दारुण गरीबी से देश वसित है और पण्य के अभाव में वित्त-वितरण गरीब मुद्रवीकरण की घटनाएँ देश में व्याप्त हैं। साथ ही आतंकवाद की जड़ें भी मजबूत हो रही हैं। इन सबके बावजूद महत्वपूर्ण अंतर्राष्ट्रीय जेनेटिस्ट परिषद इजिप्ट में जेनेटिस्ट और जेनेटिस्ट आधुनिक विषय आर्थिक फोरम में न जाने किस आधार पर यह वितरण किया कि भारत का प्रतिस्पर्धात्मक युवाकाल उन्हीं से बढ़ रहा है और इस सर्वोच्च प्रगतिशील अर्थव्यवस्थाओं में भारत का नाम चुद्र गया है।

प्रश्न उठता है कि इन उपलब्धियों के लिए कौन जिम्मेदार है? फलितिक विचारका यह है कि सरकार न तो जाना सक्षम है और न ही आर्थिक प्रोत्साहनों के प्रति सचेतनी है। उदासीनता में सरकार की पूर्णिक को रोकित है नहीं किया परन्तु प्रमुख वारिधियों से घुटकाव भी दिया है। सरकार के अन्तिम में किंगे जब प्रयास आ आदेशवसनीय प्रतीत होते हैं। जब वो एक साथ कई विचारधाराओं का मिश्रण किया करती हैं। अपनी नीतिगत नीति और प्रशासनिक प्रशासन के समक्ष देश के आर्थिक विकास में अपना बसक योगदान प्रदान करती हैं और व्यक्तिगत प्रयासों पर स्वामी का दमन करती हैं। अब वर्तमान में स्थिति में पुनर्न बदलाव आ गया है। निजी क्षेत्र अपने दम पर एक अन्तःस्थान नगरीय और सरकारी क्षेत्र बनकर उभर चुका है। सर्वजनिक क्षेत्र का प्रमुख कृत प्रयत्न हो रहा है।

आर्थिक सुधारों के अन्तर्गत उदासीनता की नीति अपनाये जाने के परभाव भारत चुनिचिन्ता से दो प्रकार की अर्थव्यवस्थाओं में विभाजित हो गया है। एक ओर तो 'हस्तिक' है जहाँ सरकारें पर विपक्षी मनमानी करती विदेशी बल के प्रसिद्ध आर्थिक वैश्वीकरण, लघुवर्ध लक्ष्य, उपरोक्त टिप्पण वस्तुओं विराजित की वस्तुओं में पर विपक्षीकरण टिप्पण मेकडोवेलि रसदों की गुच्छा अर्थक शीतल पर आधुनिक केंद्रक के आधुनिक गुच्छीत ईमानों पराजनी पक्षीय पक्षीय, कर्षक, लघुवर्ध एव सामुदायिक प्रतिक प्रकृत है। ऐसे ईमानों में जाने वाली जनसंख्या मुक्ति का प्रकृत है। ऐसे ईमानों की गुच्छीत 'भारत' है जहाँ 35-40 प्रतिशत लोग निष्कार है। 35 प्रतिशत आधुनिक निष्कार रेखा से नीचे जीवन यापन कर रही है जो आधुनिक अर्थव्यवस्था के नीचे पति है। लगभग सभी आधुनिक क्षेत्रों में, निम्नलिखित सुक्षेप के नक्षत्राल में पति है। इन सब विषयों के लिए निष्कार के से सरकार उत्तरदायी है। कुछ क्षेत्रों में निष्कार देने वाली सुक्ष्म से ही भारत विश्व के साथ रूपरेखा करण बना रहा है। लघुवर्ध रेखा में मनोपरा उद्योग और अन्य उद्योगों केन्द्र भारतीय क्षेत्रों का एक प्रमुख क्षति बनकर पति है। इन सब क्षेत्रों को अर्थव्यवस्था करण उत्तरदायी है जो निष्कार क्षेत्रों में उत्पत्ती पर तात्काली कर पति है।

पथ प्रसार करने के लिए इस लेख में प्रयास किया गया है।

एक निष्कर्ष ने अपनी रचना वेब ऑफ नेशन (1976) में इस बात पर प्रकाश डाला कि जब व्यक्ति अपने हित की बात करता है तो इस क्रिया में अनजाने में सामाजिक हित भी हो जाता है। प्रत्येक व्यक्ति दूसरों की चिन्ता किये बिना अपनी इच्छा से कार्य करता है किन्तु निःसन्देह वह अपने कार्य के अन्तिम परिणाम को मलौ मंति समझता है। यह आर्थिक समाज को एक ऐसे जीवित तन्त्र के समान समझता है जो स्वयं अपने आवश्यकताओं को उत्पन्न कर लेता है। इन सब के लिए एहन किंगे वो अदृश्य हाथ को उत्तरदायी करना जो चुपचाप बिना किसी प्रयत्न के समाज में आर्थिक समृद्धि बढ़ाता चला जाता है।

दुर्भाग्य यह है कि आज देश में अदृश्य पाँव ने अपना खेल प्रारम्भ कर दिया है। प्रसिद्ध अर्थशास्त्री पॉल स्टुटनट ने अनुपरा प्रस्तुतियों के माध्यम से यह सामाजिक आर्थिक विव्यवस्था का सिद्धांत है। विकसित देशों की सुनीतियों के हाथों में आकर भारतीय अर्थव्यवस्था एहन विषय के अदृश्य हाथों से बंदिता होकर अनुपरा एव विव्यवस्था की स्थिति में आ गई है। अतः सरकार को चाहिए कि वह ऐसे रास्ते चुने जो अदृश्य पाँवों तले अर्थव्यवस्था को सुदृढ़ करने से रोके और अदृश्य हाथों द्वारा किये जाने वाले अन्धे कार्यों को नष्ट होने से बचावे। अदृश्य पाँव इस तरह अर्थव्यवस्था का दमन कर रहे हैं कि देश में गहरी विषमताओं ने जन्म ले लिया है। देश में एक तरफ वित्तिलास के सुसज्जित विपत्ति फैलते बन रहे हैं और दूसरी तरफ गहरी गरीब श्रेणी निम्न लागत क पर। उच्च एवं मध्यम वर्ग के बच्चों हेतु शास्त्रमुक्ति स्कूल एव (लघुगति) विविधविधारी शिक्षा के अवसर हैं और ग्रामीण एव लघुवर्ध नीतिगतों के गरीब बच्चों हेतु उचित शिक्षालयों का अभाव है।

बच्चानों के लिए छात्र बर्षिकों के अवसर हैं जबकि गरीब हेतु अन्य छात्र भी उपलब्ध नहीं हैं। देश में ऐसी छात्र सत्कृति विव्यवस्था हो रही है जहाँ एक वर्ग अर्थव्यवस्था से अधिक धनवा प्राप्त है और गरीबों से ग्रसित है और इन्हीं लोगों के कारण धन कम करने वाली विव्यवस्था बढ़ने से बड़े हावों में व्यापार कर रही है जबकि दूसरी तरफ ग्रामीण बच्चानों की विचार हो रही है एव अनेक बीमारियों से ग्रसित है और उनके मानसिक विव्यवस्था की गति भी बीपी है। बाप एव देश के अन्ध पाँवों को आई खर्चे इस बात की पुष्टि करती है कि पूँच से लगाए गए मोठे हो रही हैं लेकिन सरकार इस बात का चखन इस रूप में कर रही है कि नीतों में पूँच से नहीं सुक्षेप करने से हुई है। सरकार की सुक्षेप को स्वीकार कर रही है। जहाँ एक ओर उच्च अर्थ वर्ग के अधिकारी हैं जिनका अर्थ वर्ग तो बल रही है वहीं दूसरी ओर अधिकों की निम्नतर मजदूरी दर में मात्र 6 फी के बढोत्तरी हुई है। निजी अर्थव्यवस्था की सख्य में निम्नतर वृद्धि एव सरकारी अर्थव्यवस्था की सख्य विव्यवस्था है। दोनों के पास पर्याप्त मुद्रा के पश्चात् है लेकिन गरीबों को देने हेतु नहीं। दूसरी तरफ बच्चानों को आम प्रयास करने में कोई अड़िखा नहीं है। 1990-91 से महानगरीय में ही आरंभ देने वालों की सख्य बढ़ी है। इसका प्रसिद्ध 40 प्रतिशत से बढ़कर 53 प्रतिशत हो गया है। ग्रामीण क्षेत्र का हिसा 21 प्रतिशत से घटकर 14 प्रतिशत रह गया है और अर्थव्यवस्था क्षेत्र का हिसा 17 प्रतिशत से घटकर 14 प्रतिशत रह गया है। ये महानगरीय पक्ष अर्थव्यवस्था के लिए फिनायलक है। इन सबके बावजूद करण सरकार ने लघु उद्योगों की उन्नति करण के लक्ष्य को पूरा नहीं कर दिया है। उनके लिए आधुनिक उपकरणों में कठोरी कर दी गई है। विदेशी निवेश के द्वार इन उपकरणों के लिए खोल दिये गये हैं। बलवि भारतीय लघु उद्योग करण सामाजिक आर्थिक परिवर्तनों में सामाजिक आर्थिक आधारभूत कार्यों के विकास में महत्वपूर्ण भूमिका निभा सकते हैं लेकिन सरकार के नरत निमित्तों से इन लघु उद्योगों को पक्षीय प्रयत्न होना पड़ा है जो औद्योगिक आर्थिक विकास को रखा है जहाँ सख्य वर्ग के उद्योगों की नाम को पूरा करने की ओर ही कृष्ण है। परिणामतः उद्योगों का सामाजिक आधार भी

सिद्धक है। साथ ही माग यह है कि मानवीय भूत्यों को पुन कालक्रम करने हेतु आर्थिक सामाजिक आधारभूत कार्यों में विकास करने के लिए पूर्वीकल्पित और अन्य अधिकारी बल बडे उद्योगों को विव्यवस्था करना पड़ेगा। साथ ही यही क्रिया समाज में निहित विषमताओं एव समस्याओं से घुटकाव दिला सकती है।

हाल में ही घोषित दसवीं पंचवर्षीय योजना का महीदा सिंह राजनीतिक बुनारी लोक बुनारी बोधना के अलावा कुछ भी नहीं है। इस योजना में यह लक्ष्य रखा गया है कि राष्ट्रीय उत्पादन की वार्षिक वृद्धि दर 8 प्रतिशत होगी और प्रतिवर्ष कम से कम एक करोड़ नये रोजगारों का सृजन होगा। सैकिक समानता स्थापित करने हेतु कुछ विकास पर बस दिया। प्रत्येक मास को पीने का पानी उपलब्ध करना गरीबी का अनुपात 20 प्रतिशत से घटकर 21 प्रतिशत करने से आना और सामग्री को 75 प्रतिशत तक पहुँचा देना भी इस योजना के लक्ष्यों में सामिल है। कुल मिलाकर इस योजना का प्रमुख लक्ष्य मान्य जीवन शैली में सुधार लाना और उसी मासिक वृद्धि पर वस्तु उत्पादन करना है। पिछली पंचवर्षीय योजनाओं की असफलताओं के संदेह हेतु दसवीं योजना कीटनी सख्य हो पायेगी इन्हीं वारों है। निरोजन के 80 वर्गों के बीत जाने के बावजूद बला लोगों को पर्याप्त छात्र परवर्ध उपलब्ध हो रहे हैं? क्या उन्हीं शिक्षा स्थाप्य पैकवार, सरकारीतरी मुद्रुता सामाजिक अवसरकताएँ पुरी करनेकी सुविधा प्राप्त हो रही है? आर्थिक एव सामाजिक अवसरों में वितरण किये बिना असमानताओं में कमी किये बिना समाज के सभी वर्गों को आर्थिक सामाजिक विकास की मुख्य धारा से जोड़ना वैध मुक्ति होमा।

देश में व्यापक प्रचलन की गहरी जड़ें एव सरकार की उदासीनता ने अर्थ व्यवस्था के सभी क्षेत्रों में अक्षय पाँव को जन्म दे दिया है जो अर्थव्यवस्था को केन्द्रक स्थिति में तो कुल्लत है। अक्षय पाँवों की वितरता से अर्थ व्यवस्था को बचावे हेतु सरकार को यह दायित्व सौंप करना होमा कि वह योजनाओं की क्रियाविधि इस तरह करे कि उत्तम सख्यिक लक्ष्य समाज के उस वर्ग को मिले जो उपलब्ध एव सामान्य है।

डॉ. उषा जैन
विभागाध्यक्ष अर्थशास्त्र
वैदिक कन्या स्वातन्त्र्यता महाविद्यालय
राजाधारी जयपुर राज

क्या कालनेमी गुरु होते हैं ?

क्या कालनेमी गुरु भी होते हैं? इतना से बच सकता है लेकिन उनसे जैसे बचें! हमारे देश में तो गुरु को भगवान का पद दिया जाता है लेकिन अगर गुरु ही कालनेमी हो तो हमने कौन बचाये या इतना कहा से मिले? लोग कैसे गुरु को भगवान की तरह पूजते? क्या हम इनसे बचने की शिक्षा नहीं मिली चाहिए? क्या बाल बाल लिया जाये कि ऐसे गुरु व धर्म ने हमें एक-दूसरे को अन्दर से जारते हुए भी मन ही मन एक-दूसरे को फाँसी देते हैं? साथ ही यह भी विचारणीय बात है कि क्या कालनेमी गुरु के लिए ऐसा धर्मा बन्धा खुदा पुत्र या महिला में कोई भेद नहीं है और किस नीत के सिवाय कुछ भी नहीं जानना। तो क्या ऐसे में वैज्ञानिकों को ही भगवान मान लिया जाये जो लोगों को जियन्दी देते हैं।

— निवेदक —

एक भारतीय, सैथी जागरूक अभियान

दयानाथ पौदार

आर्य समाज मंदिर लली अद्वानन्द पथ

विश्लेषण

आपकी आर्य नीति पत्रिका काफी दिनों से पढ़ रहे हैं। आर्य नीति द्वारा जो आर्य जगत को सर्वश्रेष्ठ दे रहे हैं आपको बमबारा देते हुए दो शब्द कहिका काम में प्रस्तुत है—
बड़ी बड़ा ऐस से पकड़ी पहिख अर्य नीति।
जेह रहै है मरलका की दूर रहै जो प्रीति।
अर्य नीति अर्य नीति का भाव सिखारे कही।
भटक बने को अपने घर से राह दिखारे कही॥
राह दिखारे कही नीति ममकेनी जन में ज्योति।
अर्यों का सम्मान करेगी चुनकर धरे नीति॥
कह अर्या विरल के घर में पाएगी सम्मान।
वेद गीता उपनिषद् ऋषि मुनियों का श्रम॥
रुत-रुतकेसे रसलेखे जे सवे अर्य-नीति पहिख॥
दम्पति प्रजाक को धी बुरक्यो एक बरा॥

आर्य जगत के प्रसिद्ध गीतकार

दम्पति आर्य प्रयाकर
 प तेजपाल आर्य श्रीमती आमा आर्य
 नि आर्य समाज भदिर
 अमरोहा उत्तर प्रदेश
 फोन-06622-64719

आपने ऋषि निर्वाण दिवस वैदिक कथा स्नातकोत्तर महाविद्यालय के सम्पादक बहुत चुनकर और सफलतापूर्वक कार्य किया है। श्री सत्यवत सामवेदी जी के भाषण के अंत आर्य नीति के 8 नवम्बर 2002 के अंक में प्रकाशित किये हैं जो अत्यन्त प्रभावशाली एवं उत्तरावर्क हैं। आपको इसका लिए हार्दिक शुभ कामनाएं अर्पित करते हुए प्रार्थना है कि जयपुर में प्रितानी श्री आर्य शिक्षण संस्थान में अगले साल में एक वर्ष सामूहिक रूप से मनाने की परम्परा आरम्भ करें जिसमें सब आर्य विद्वान् संस्थानों के शिक्षक वर्ग भी शामिल अजना-अजना योगदान दें।

यह प्रश्न है कि ए.सी. कॉलेजों में आर्य करने के लिए 'अर्य प्रश्न' की दो विभागों में 'अर्य प्रश्न' का एक भाग है कि ए.सी. कॉलेजों में भी इसी प्रकार के आयोजन आरम्भ करने की परम्परा आपकी पहल के अनुकरण में आरम्भ हो जायेगी।

आपके परिवारजनों सहयोगी कार्यकर्ताओं के कुशल केम की मंगल कामना परम्परा परम्परा से करता हूँ।

सत्यमेव जयते

हरसक लाल कपूर
 सहजनी

अधे प्रादेशिक प्रतीति से समा
 भदिर मार्ग नई दिल्ली-110001

आदर्शवीय मोदय
 नमस्ते।

दिल्ली के साप्ताहिक 'आदर्श' पत्रिका के 21 सुलाई 2002 अंक में आपके पत्र में प्रकाशित लेख जो स्वामी अग्निवेश जी द्वारा लिखा गया बताया गया है पर एक आन्ध्र तथ्यक लेख। अग्निवेश जी के विरुद्ध प्रतीति होता है कि आपने गुप्तकार के साप्ताहिक दया पर कोई तथ्य दर्ज टीका टिप्पणी की भी जो यहाँ सांस्कृतिक बलों को अजी नहीं लगी।

चूँकि आपके विचार अन्य आर्य समाजी पत्र-पत्रिकाओं के सम्पादकगणों से भिन्न है और तथ्यों पर आधारित तथ्यों हैं इसलिए मैं आपके विचारों से निरंतर अलग रहने के उद्देश्य से आपकी पत्रिका आर्य नीति का प्राहक बनने का प्रश्नक हूँ।

ब्रह्मसिंह वर्मा

23 बैंक रोड पटौली प
 गुडगांव-12200 हरियाणा

सामाजिक सन्देश-आत्मज्ञान।

सम्पूर्णनिष्ठावर्णन।

आप द्वारा प्रेषित पाठिक 'आर्य-नीति' के दोनों अंक मिले तदर्थ हार्दिक बन्धन। प्रथम अंक की प्रगति के अनन्तर ही आपकी सेवा में पत्र लेखन का अतिशय ही किन्तु कार्य बाहुल्य की उत्तमताओं के कारण क्यासम्पन्न नहीं शिवाजी। सत्यमेव जयते के इतिवृत्त लेखन में आपकी निर्भीक व बेबाक लेखनी वस्तुतः उत्तुल्य प्रशंसनीय एवं एक आर्य तत्त्व के योग्य है।

आपका यह गुण सर्वतोभावेन समुचित होकर आर्य जगत्, समाज, राष्ट्र की गरीब शिक्षा प्रदान करें। ऐसी हफ्ते शुभकामनाएं हैं।

सदैव आपने अपने इस 'कथा युक्कल' के प्रथम दर्शन में स्वाभूति का जैसा विमर्श किया है उस उदात्तता के लिए आपका हार्दिक धन्यवाद करती हूँ।

आपकी भावनाओं अनुभूतिशील व आत्मार्थ के अनुक्रम युक्कलपत्र परम्परा व सत्यता के सम्मान के लिए प्रयत्नशील हैं।

आशा है युक्कल व दानार्थ के आर्य से उत्पन्न होने में यत्किंचित् सकलता मिलेगी। इस अतिशयलक्ष्य कार्य में आप सदैव उदात्ततया शिक्षा शास्त्री तथ्या विद्वान्मनों की शुभकामना व आशीर्वाद की कामना के साथ।

सुमेधा आचार्य
 श्रीमद् दयानन्द कथा युक्कल महाविद्यालय
 चोट्टीपुर रजबपुर ज्योतिषा फुले नगर
 उत्तर प्रदेश-244235

आर्यों का कर्तव्य

आर्यों करम आगे ही बढ़ाते चले चलो।
 मजिल है कड़ी हिम्मत जुटाते चले चलो।।
 जो काम अधूरा है महर्षि का रह गया।
 कर पूरा ऋषि का चुकाते चले चलो।।
 तुम देव दयानन्द के सच्चे बाने सैनिक।
 हो सौकन आर्यों को बाँकाते चले चलो।।
 यफला की नींद में जो सो रहे हैं अभी भी।
 कर होशियार उनको जगाते चले चलो।।
 जो आर्यसमाज को समझे नहीं अब भी।
 उनको भी ऋषि भगत बनाते चले चलो।।
 तारिकी जहालत की अग्नी छाई जहा ने।
 जहालत निशा को दूर भगाते चले चलो।।
 पाखण्डियों ने डोंग अली भी है फँसाया।
 ज' उसको बंधातुन से लिला चले चलो।।
 दुनिया समझ ले दम खम आर्यों में है अब भी।
 हल चल जहा में फिर से भगाते चले चलो।।
 सैरार है चलने की जमाना तेरे पीछे।
 इच्छालाक्ष अपना लँछा उठाते चले चलो।।
 करता है कौन आर्य समाज अब तो गया।
 फिर होसता बुलंद दिखाते चले चलो।।
 अग्नी ने और अग्नी में बस फर्क है समझो।
 कजनी को कजनी में समझाते चले चलो।।
 सत्या हवा करते सरो जलते भी मनावा।
 पेशी-नाति में हाश बजाते चले चलो।।
 तुम आपसी कलह को समाज से दूर करो।
 मुहम्मद की गाँव फिर से बहाते चले चलो।।
 वैदिक कर्म वे सल राहत पारगा जमाना।
 पैगामे सैद घर-घर सुनाते चले चलो।।
 एक दिन चलेगी दुनिया नमस्ते या है ऋषि के।
 तुम होसला बुलन्द दिखाते चले चलो।।
 गढ़ कीगियों का बुर-बुर होकर रहोगा।
 तुम तर्क के मोले को बरसाते चले चलो।।
 कथिबद न कहने की चड़ी अब है रह गई।
 आगे बढ़ो कर्तव्य निभाते चले चलो।।

इ बरसी (सूँ-निम) अ-नदेवसिंह इन्द्रावर्मा
 ज्ञान पी कुमुद कला मका एकम
 जनसंघ-साम्प्रत उमरा विहार-641208

कवि से

लेखनी से काम कवि क्या तक करोने
 आज तो तलवार का युग आ गया है।
 आज तक तुमने बहारों के घराने
 या तिरवे पर्वों सारा विश्व जाने
 तुम ने दी फूलों को बसकती जलनी
 और कसियों को चुगुन्धि के लज्जाने
 किन्तु केवल कल्पनाओं में विश्व कर
 तुम कहीं छुव सत्य को ही भूल जाओ
 इसलिए उल्टे कवि नम से बरा पर
 अब वस से प्यार का युग आ गया है।

आज तो तलवार का
 लौट ही जाए न उपवन से बहारे
 बहारे। अब है फिर कहीं फाटकर न आवे
 मुकुराते फूल ज्वाला के न सुनो
 और कलियों की जलनी सड़ न जाये
 बाग के माली उठो पलकें छपायी
 रका दे दे कर हर एक पौधा सवाते
 फूल की मुस्कान से खिलनाइ होली
 एत से सत्कार का युग आ गया है
 आज तो तलवार का

जागृति का सख बड़कर फूल तो तुम
 जिसको सुन पलकों से तन्का भाग जावे
 जिसकी ध्वनि से हृदय कापे धनुओं का
 करवट ले ले के हर कण जाग जावे
 जिसका स्वर रोमांचित कर दे धरा को
 और हो विस्तीर्ण नम जिससे निनादित
 अब न मरनाते रस्तीले गीत गाओ
 आज तो हुकार का युग आ गया है
 आज तो तलवार का

उत्तम कवि करर
 मकान न 40/8
 घानीपट हरियाणा

महर्षि तुमने विष दिया, अमृत हमने पिता दिया

सनातन वैदिक धर्म का देस को जो गोचर प्रपन्न था
 सत्त्वता सत्यकी ज्ञान का जगत गुप्त जो भारत था
 ऋषि ने उस युग को पुन स्थापन पर दिया बल था
 महर्षि तुमने दिया अमृत हमें पिता दिया।

महर्षि तुमने विष

दयानन्द ने स्वतंत्रता की एक भूमि ठेका की थी
 उरनेने बिक 'नितिक मुल्ला की स्थापना की थी
 क्रुद्धितीयों अविश्वसनी के कलन करो की ठान ली थी
 ऋषि ने हमें पदपुत्र आर्य समाज का लौटा दिया

महर्षि तुमने विष

ऋषि ने स्त्रीप्राथा का दूर धर्म को किया बर्षित
 'निर्या' पुष्पां से टीन नहीं सहे दिया समर्पित
 जिस कैल बह विचार तीनों का किया विरोध बर्षित
 ऋषि तुमने मुर्दा में जान बालके जिवा कर दिया

महर्षि तुमने विष

ऋषि ने मुकुन्द प्रभाती का किम तैलार सम्पूर्ण
 भाव अनुमिति सह पिता का दिया विरोध सम्पूर्ण
 उत्तम ज्ञानी सदाचार अक्षयको को किम अनुमति
 ऋषि तुमने कनाल पर कमाव कर दिया

महर्षि तुमने विष

ऋषि ने कति प्रा को पाप धर्म को किया वर्णन
 जाति व्यवस्था और अनुभूतता का किया उक्तन
 आत्म वर्ण और कुलों की शिक्षा का किया मर्दन
 अब अक्षय से और कुलकर्ण? उही ऋषि ने था कुल मर्दन

महर्षि तुमने विष

— गुण-भुवन आर्य—

804 कोल निवात जयवार अलीनी,
 सत्यमेव जयते-685478

चन्द्रावती चौधरी स्मारक ट्रस्ट

महाराजपुर, जिला—छत्तापुर, मध्यप्रदेश

वार्षिकोत्सव सम्पन्न

[illegible]

आमंत्रित विद्वानों ने इस विदुषी महिला वक्ताओं ने वेद की अमृता पान करने का वरदान को धीरे-धीरे प्राप्त करने की शक्ति की शक्ति के लिए वेद मार्ग पर आगे के लिए आज्ञा कर दिया। सत्त्वान विदुषी पर आदर्शपूर्ण जीवन ने अमृतता प्रदान किया। पुण्यस्थानों में माताविशेष को जाग्रत करने के लिए अपने जीवस्थिति विचार तथा मन्त्रों से वारा प्रसाद प्रदुष्ट किया। निम्नोक्त पुण्य के लिए सत्त्वान पान प्रदत्त करने पर कार्यकर्ता सत्त्वान पर सत्त्वान अमृत। जीव वेद वेद तक विद्वानों मनुष्यविशेष की विशेषता शक्ति है जिसमें मानव जीवन की श्रेष्ठता स्थिति प्रदत्त होती है बलवान्तर शक्ति प्रदान, रहितों के हृदयों की अन्तर्भाव कर आज्ञा कर दिया। निम्नोक्त 12 मन्त्र पर 13 मन्त्र के अन्तर्भाव की अन्तर्भाव अतः सत्त्वान मनुष्यजाग्रत के प्रधान श्री अन्तर्भाव प्रदान करने की।

कार्यक्रम को भुसञ्चालित रूप से सम्पन्नता के अन्तिम सौपन तक पहुंचाने में श्री रामेश्वर प्रसाद आर्य एवं आर्यवीर श्री विवेक आर्य ने अथक परिश्रम किया। साथ ही सभी पदाधिकारी लगन के साथ सहयोग करते रहे।

आर्य यूवक सम्मेलन सम्पन्न

महाराजपुर। आर्य समाज के तत्वावधान में 5 नवम्बर को सभाघर पर आय युवक सम्मेलन श्रद्धानन्द सभा कक्ष में सम्पन्न हुआ जिसमें सैकड़ों प्रतिभाशाली आर्ययुवक उपस्थित थे। कार्यक्रम का शुभारम्भ वेद मंत्रों के साथ प्रारम्भ हुआ।

कार्यक्रम के सोजक भी अजय आर्य एवं सभासक्त श्री बरगुजर पाण्डे ने काफी प्रशंसा पायी। सै कार्यक्रम को रोचकता प्रदान की। कार्यक्रम के मुताबिक सै कार्यकर्ता अर्य के द्वारा रिलेक लगाकर लगी का स्वागत किया गया। प्रत्येक कार्यकर्ता ने जीवन को उन्नीसवीं शताब्दी का समाजोपयोगी बनाने के लिए प्रेरणादायी विचार दिए। विभिन्न क्षेत्रों में शासकीय प्रतिष्ठानों में कार्यरत एवं आयुक्तिक टेक्नोलोजी में प्रशिक्षण प्राप्त कर रहे हैं। नवयुवक ने अपने अनुभव बहसकर प्रेषण किया और उसे नवयुवकी का मार्ग प्रशस्त किया। नृजससती के ध्यानमग्न रहार में रेलेंड किया। प्रत्यक्ष भी योग्यता की ने अपने अनुभव का लाभ देते हुए हर प्रकार से सहायता करने की घोषणा की।

आर्यसम्राज्य के प्रजापति श्री जम्भवन्तस्य आर्य ने भी नवयुगको
 एक परवर्तक बर्णन के लिए उन्मोक्तकक्ष लिए आर्यसम्राज्य में
 नृपतिं दृष्ट्वा नृपानां प्रजापतिं सत्पतिं ॥ जिसमें सत्पति प्रजापति श्री
 श्रीभरत आर्य हैं ॥ आर्यसम्राज्य के पुरोहित श्री भी. वसुदेव
 जी ऋषी के पीरशिष्य हैं। नृपतुल्य एक आर्यपति किमि गंगा
 सिन्धु नदी आर्यसम्राज्य के प्रजापति श्री जम्भवन्तस्य आर्य अर्थात्
 अश्वमेधी श्रीरक्षी प्रजा आर्य के साथ नवयुग बर्णन को ॥ अथ
 प्रजापति न च पतिव्रता सती आर्यवर्णने न पुत्रा वरुणं एक उदें
 शसुक्तां वृक्षारोपितं प्रजापतिं ॥ इति किमिदं को अर्थ श्री
 जम्भवन्तस्य ॥ ये आर्यसम्राज्य द्वारा परवर्तनी अर्थात् नवयुग की
 भी जांचें ॥ रामायण को अर्थक्य एवं नवयुगवर्णन की रामायण
 के चौबीस पाठों ॥ अथ लोकोक्ति मेघनाथ एव तामस से
 सिद्धात्मन्यो अर्थ अर्थविक्रमार्थ को अर्थ ॥ अन्ते सत्य के लिए
 इदं प्रमाणविकी ॥

मंत्री आर्यसम्राज, महाराजपुर,
छतरपुर मध्यप्रदेश

देसराज परिसर, सी-ब्लॉक, ईस्ट आफ कैलाश, नई दिल्ली-65

दयानन्द ने न्यायपूर्ण समाज रचना की नींव रखी

नई दिल्ली। केन्द्रीय कोयला एवं खानमन्त्री उमा भारती ने कहा कि महर्षि दयानन्द ने अर्थव्यवस्था को खिलाफ दलितों की जीवनन छोड़कर न्यायपूर्ण समाज रचना में बलपूर्वक भूमिका निभायी थी। उन्होंने यह भी कहा कि समाज में महात्मा का दर्जा हिलाने में आर्य समाज के योगदान की सराहना की। उमा भारती ने ये विचार 11 नवम्बर को 18वीं दसराज चौधरी स्मृति व्याख्यान के दौरान 'सामाजिक न्याय-समर्थन धुनीरिया' विषय पर व्यक्त किये।

राजधानी के गणमान्य नागरिकों को सम्बोधित करते हुए कुर्मी भारत ने सामाजिक न्याय को राष्ट्रीय तत्त्व निश्चित किया और कहा कि यह विषय मेरे हृदय के बहुत करीब है। उन्होंने अल्पसंख्यकों को इसका दलित और पिछड़े वर्ग का सम्मान तथा महिलाओं को आर्थिक रूप से स्वावलम्बी बनाने का आह्वान किया। तथा कहा कि भारतमें विभक्तता मिटा कर न्याय पूर्ण समाज सचवना का इशारा देकर रास्ता नहीं हा। समाज

सुभी नारती ने टेकराव जोड़ आम सहमति का मार्ग
अपनाये की सलाह दी और कहा कि यदि ऐसा हो सके तो
15-20 वर्ष में भारत का उदय एक विश्व महाशक्ति के रूप में
होगा। उन्होंने कहा कि वैदिक ज्ञान पर आधारित भारतीय
संस्कृति उन्मत्ति का सनातन अवसर सुलभ करने के लिए
प्रेरित करती है। उन्होंने दावा किया कि दुनिया में हिन्दू
संयुद्धवादी ही ऐसा है जहाँ हमने उसे कम बेदमना है और जहाँ
सामाजिक असमानता दूर करने के लिए समय-समय पर
प्रभावशाली आन्दोलन होते रहे हैं।

करीब एक घंटे के औपचारिक नाचपन में अल्पसंख्यकों की सुरक्षा पर बल देते हुए उन्होंने पुलिसमैन ब्रुअर्स से कहा कि आपको यह सुरक्षा पड़ोसी के साथ सद्भावपूर्ण सम्बन्धों से ही मिल सकती है। पुलिस और सेना की इस विषय में कोई भूमिका नहीं हो सकती क्योंकि पुलिस धारण की संख्या पचास हजार से अधिक नहीं जबकि भारत की आबादी पांच लाख पाँचों में निवास करती है।

उमा भारती ने कहा कि अजान होने पर मैं अपना नावण बीच में रोक कर मुस्लिमभानों की ईश्वर भक्ति के प्रति सम्मान व्यक्त करती हूँ। उन्होंने अजाना की कि हिन्दुओं के चार्मिक जुत्स यदि मरिजब के करीब से गुजरे तो मुस्लिम समुदाय को इस पर ऐराज नहीं होना चाहिये। टिकाक रिस्ता दोतरफा ध्यवहार से बनेगा इकराफा कथि अपनाके से नही।

समकालीन सामाजिक परिदृश्य का विश्लेषण करते हुए उमा भारती ने कहा कि केवल आत्मनः से समस्या सुलझने वाली नहीं। जरूरत ऐसा माहौल बनाने की है जिससे दलित बाली छिपने तकसे समाज में समानता की जितनी भी बसर कर सकें। उन्होंने कहा कि महिला के लिए सामाजिक न्याय का अर्थ आर्थिक आत्म निर्भरता है। धर्मनाम स्थिति का परिवर्तन के किसी एक पुरुष मध्यम पर निर्भर नहीं है, बल्कि एक बाध्य करणी है। उसे इस विषयता से मुक्ति दिलानी होगी।

दिल्ली की पूर्व महापौर शकुन्तला आर्य ने अध्यक्षीय सम्बोधन में कहा कि देशराज चौधरी ने असहाय बालिकाओं की शिक्षा-दीक्षा का प्रबन्ध कर नारी शक्ति के निर्माण में रचनात्मक भूमिका निभायी। उन पर दयानन्द की सत्य निष्ठा श्रद्धान्तक की श्रद्धा और गांधी जी की सादगी का गहरा असर था। उनका यश शरीर उनके द्वारा स्थापित संस्थाओं में देखा जा सकता है।

18 वर्ष पूर्व हुई देसरज चौधरी वज्रुति व्याख्यानमाला में
 दोनम प्रकरण अन्तर्ग है जे जे प्रमाण तका औ सरासरीह अख्खा
 योहो मिलावत औ। समा नय व्याखन औ गभी के चित्रो से
 सुशोणित था। देसरज चौधरी के पुत्र पदमरी गेरेरा प्रताप-
 चौधरी ने कार्यक्रम का सचालन किया औ चन्द्रवती चौधरी
 कसम ट्रस्ट के प्रधान स्त्रील प्रकिया ने अग्र्यणन को प्रति
 आभार प्रदर्शन किया तथा चन्द्र आर्य विद्या मन्दिर की छात्राओं
 ने देवभक्ति पूर्ण गीतों से वातावरण को सरसता प्रदान की।
 सुन्दर मोहन प्रचार प्रमरी
 आर्य अनाथालय

1488 पटौदी हाउस दरिया गज नई दिल्ली-110002

आर्य समाज, टोंक

कसेरा भवन, जवाहर बाजार, टोक

महर्षि का निर्वाण दिवस सादगीपूर्ण मनाया

टोक। आर्य समाज के संस्थापक महर्षि स्वामी दयानन्द सरस्वती का दीपावली पर निर्वाण दिवस समारोह सादगी पूर्ण मनाया गया। इस समारोह में आर्य समाज टोक के मंत्री कर्गदीश चन्द कसेरा ने अपने सम्बोधन में अपने विचार प्रकट करते हुए बताया कि धार्मिक सम्बन्धित पुनर्जागरण के महान प्ररोध महर्षि दयानन्द सरस्वती हैं।

[illegible]

स्वामी जी ने हिन्दुओं के ईसाई और इस्लामीकरण की आलोचना की और हिन्दू धर्म के अग्रदूत द्वारा की अवशिष्ट

[illegible]

द्वयस्थान में वैदिक राष्ट्रवाच का विलक्षणता कविता । उनको ब्रह्म सत्त्वान्मिश्र भावरा और अद्वैतवादी भावना भूमिका में है । स्वयंसे प्रेम और राजनीतिक विचारों की नीमभासा की गयी है । राष्ट्रवाच में वैदिक राष्ट्रवाच वैदिक संस्कृति प्रत्यस्कृति प्र स्वयंसे प्रेम बुद्धि राष्ट्रवाच आदि भारत के नीमस्थानों अतीत का बचाना और हिन्दी तथा संस्कृति के प्रसार-प्रसार का गहन प्रमाण हिन्दुत्व प्र हिन्दु राष्ट्रवाच के विचार प्र पढ़ा । उनसे सम्पूर्ण ब्रह्म सत्त्वान्मिश्र आन्दोलन में आन्दोलन भासा का विलक्षणता कविता । भारत को सारे सारे आन्दोलन विलक्षणता के विलगु को बचाना और स्वामी की पढ़ा है । उनसे आकाश प्रसातों के काया भासा आजाद भासा । आज हम और भारत संस्कृति उनके नाम प्र पढ़ा तो कोई विवेक आयोग का पढ़ करतो है । उन में कोई भासा सन्त अर्पित करतो है । यह भी पढ़ा का विवेक है ।

"आर्य समाज अमर रहे इयानन्द जी अमर रहे"

जगदीशचन्द्र आर्य मंत्री

आर्यसमाज कसेरा भवन जवाहर बाजार टॉक

(संभवतः)
प्रा. डॉ. यन्त्रसेखर लोखंडे
खारडी विद्याभारतकर
सीतामदन नगर, मंगरूर-महाराष्ट्र

राष्ट्र भाषा हिन्दी तथा भारतीय भाषायें विज्ञान और तकनीकी शिक्षा का माध्यम कब बनेगी ?

गताक का शेष

नई दिल्ली। कार्तिक पूर्णमास सन्त 2069 विक्रमी (20 11 02)

मन्त्री जी न विद्वान् व्याख्यानदाता का धन्यवाद किया। रात्रि के कार्यक्रम की सूचना दी जाती पाठ एव प्रसाद वितरण के साथ कार्य सम्पन्न हुआ।

प्रधान मंत्री

आर्य समाज की ब्लॉक जनकपुरी
नई दिल्ली-58

1. भर्षिं दधानन्द कृत सस्कार विधि में एक कण्ड पर

4. ऋग्वेदीय यज्ञ के विशेष में कोई वेद का प्रमाण हो
के है?

आचार्य आर्य नरेश
श्रीमान श्रीमान

अध्यक्ष सत्यनाम स्वामीजी धर्मन्यास, विनायक
ग्राम चौहर, डाक कागू, तह राजगढ़
छात्रसंघ सिरसोर-173001 विनायक

[illegible]

अतः भारत सरकार मानवसंसाधन विकास मंत्रालय को शीघ्र ही इस ओर ध्यान देना चाहिये। भारतीय विज्ञान संस्थान बंगलूर के द्वारा यह कार्य करवाया जा सकता है।

ज्ञान के क्षेत्र में भारत महाराष्ट्र एनी नम सकता है जब आज की वैज्ञानिक उत्कृष्टी अपनी भाषाओं में दिया जाए। प्रौद्योगिकी की बीसवीं शताब्दी के सहस्र हम कम तब देस के ज्ञान ज्ञान को आगे बढ़ाएंगे? पहले सत्यतः देस के ज्ञान विज्ञान भाषा ही नहीं इसी कारण भारत विश्व का मुक्त माना जा किन्तु आज हमारे पास साधु साधु विज्ञान देस की भाषा की अपनी को नहीं माना नहीं है। सत्यतः को तो नये पहले ही मुला दिया है किन्तु अब हम सद्र भाषा हिन्दी आज भारतवी भाषा की निस्तर उपेक्षा किज जा देस के ही की अन्तरे देस की भाषा की की अन्तरे परहस को से कम चन्द्रभाषा उपभाषा हिन्दी को तो देशीनिक र लक्ष्मी की भाषा का मध्यम नया। उत्साह को सत्य नये के उत्साह करे। अन्त्यभा अर्धी ही जानका एक नम नम रह जावेरी तब यह ज्ञान अर्धी इसने वाले कुछ को तब ही सीमित रह जायेगी। देस की जनता की इष्टम है ही भाषी देस की भाषा का मध्य सत्यन विकसत मयास देस और ध्यान देना?

जब चीन अपनी भाषा में वैज्ञानिक एवं तकनीकी ज्ञान प्रत्यक्ष रूपका सफ़ाई है तो भारत ऐसा नहीं कर पाया। इसी कारण कम्यूनिस्ट एवं इंडस्ट्रियल के लोग मे हम की तरह इंडस्ट्रीमैनल कम्युनिस्टोशन तथा सब यूज्ड क्लॉक ऑफ़ डैंगल जैसी कम्युनिज्म का सहयोग लेकर चीन भाषा भारतीय भाषाओं के लिए भारत इंडस्ट्रेट ना ही इंडस्ट्रीटेलोस का आरम्भ कर सकते हैं फिर सॉफ्टवेयर निर्माण और समस्त सुचना प्रौद्योगिकी में हमारे विस्थापनीय एवं प्रत्यक्ष एवं सख्त है। फिर भी इन दिनों जहाँ भारतीय भाषाओं के सॉफ्टवेयर तैयार नहीं करपा जा रहे हैं। हिन्दी भाषासहित भाषाओं का बहुत कम बजार है। भारत सरकार या मानवसंसाधन विकास मंत्रालय को थोड़ा धन और ध्यान चाहिए। मानवसंसाधन विकास मंत्रालय विभिन्न स्तरों की विद्या के प्रत्यक्ष के लिए प्रयत्न कर रहा है उसे हस्त और ध्यान देना चाहिए।

डॉ. बन्धु प्रकाश आर्य
आर्य निवास अर्बन एस्टेट
कमनाल-132001 हरियाणा

आचार्य ज्योतिष

वर्ष 2 अंक 47 21 दिसम्बर 2002 मूल्य एक प्रति 3 रुपये डाक परिवहन सहित RJ-38372804 वार्षिक मूल्य 75 रुपये

अमर हुतात्मा स्वामी श्रद्धानन्द बलिदान दिवस

तड़पती आत्मा का पुकार

विनाश के तूफान में आर्तनाद करते हुए भारत,
तुम दयानन्द का हथ क्यों नहीं पकड़ते?
—सत्यव्रत 'सामवेदी'

जयपुर 20 दिसम्बर। महापुरुषों की जीवनगाथा उपन्यासों और नाटकों से भी अधिक रोमांचक व रोचक होती है परन्तु स्वामी श्रद्धानन्द की जीवन कथा का प्रभाव सार्वजनिक विमलरस है। मिशन का पैदाइश ईसा 1863 में महाराष्ट्र के अमर ग्रन्थ है जिसमें सर्वप्रथम ईश्वर और सैतान के महायुद्ध का रोमांच खड़े करने वाला चित्रण है परन्तु स्वामी श्रद्धानन्द की आत्म कथा 'कल्याण मार्ग का पवित्र पाठक को नरक से स्वर्ग तक की यात्रा करते हुए अनेक भयानक घोरतम घृणित दृश्य के बाद स्वर्गिक सान्त्वयन महाहारी चित्र दिखाते हुए ब्रह्म लोक की अद्वितीय आकाश के वर्णन करता है। मानव जीवन के उदयान और पतन के दुश्चक्र को देखता हुआ पाठक सास लेना भूल जाता है। इस आत्म कथा में पाप सागर में डूबती हुई आत्मा का आर्तनाद है। एडवेंचर है यद्यपि है मंदिर है मंदिर है मुद्रा है मधुन है चन्द्रमा वासना का जलवाती आकर्षण है रोमांच है शायरी है शतरंज है हुकूम है अस्वास्थ्य है मंदिरवासी है आचार्यजी हैं और हैं पाप सागर में उताल तरंगों को विदीर्ण करने वाले नरम्भी मगरमच्छ। इस भवसागर में भयत्रस्त मानव चीख चढ़ता है—बचाओ बचाओ। सारे तरफ निम्बड़ अन्धकार है कोई आका की किरण नहीं। नरम्भी मगरमच्छ के मुह में आसू बहते हुए मानव की चीख सुन कर आकास कपने लगता है और सहसा एक प्रकाश पुंज का अवतरण होता है। इस प्रकाश पुंज से नरम्भी मगरमच्छ और उसके खिचर निरीह मानव की आँखें चौकीया जागी हैं। उस प्रकाश पुंज की शक्तिशाली भुजाएं मगरमच्छ के मुह से चीत्कार करते हैं, मानव को पकड़कर लीजने लगती हैं और मगरमच्छ महासमर प्रारंभ हो जाता है मानव को बचने के प्यास सागर और अन्धकार के सदेहवाहक प्रकाश पुंज के बीच। यह प्रकाश पुंज की है जिगकी अविनाशिक भुजाएं मानवता को त्राण के लिये अचल से महायुद्ध कर रही हैं। यह प्रकाश पुंज है आदिश्रद्धानन्द महर्षि दयानन्द सत्यवती।

ईश्वर बना समर्पित प्रतिष्ठा की प्रतिष्ठा मानवका अपने लक्ष्य के प्रति प्रतिष्ठा को पाप सागर में डूबते हुए देखकर बिलस कर रहा है। पौडिये से ईश्वर गति में लीन परिवार में क्या हुआ कैसे हुआ? मानवको का जलवाती वायुकि मेरे बेटे को कैसे उठा कर ले गया। मैं क्या करूँ कहा जाऊँ? मेरा बेटा तो दसवें के दिनों में दिव्य गये मेरे के खर्च में से कुछ बना बसाकर दूतीदार झारी खरीद कर लाया था जिसमें देवास पर जल पड़ने के लिये जल भर लेता था उसने भी तब की एक बहिन लखौरी की जिसके ऊपर पड़ने का दस्ता

और बीच में वो कटोरिया जड़ी होती थी। एक कटोरी में अन्न दूसरी में चवन और थाली में फूल और बिल्वपत्र रख लेता था। नित्य प्रातः दाने हथ में झारी और बगल में चोली अंगोछा लेकर विश्वनाथ जी के दर्शन करने जाता था। मार्ग में सब शिवलिंगों पर झरो से एक बूट डुआते हुए विश्वनाथ शानीकर देवता महावीर अन्मर्ण और गणेश कुम्भिराज प्रेम पूर्वक वदन



अन्न पुष्प नैवेद्य धूपदान से पूजा करने घर आकर जलपान करना उसका नित्य नियम हो गया था। मेरा बेटा जब 10 वर्ष का था तब नियम पूर्वक तुलसीकुश रामायण का भक्तिपूर्वक नियमित पाठ करता था। एक दिन अपने भाई के साथ उज्जैन मंदिर से शिवलिंग उठ लाया और मेरा अनुकरण कर शिवलिंग को लपट कपड़े उस पर पुष्प वेलपत्र चढ़ाए और घूट दीप नैवेद्य दयानंद करता था। बांध में किन्तु पवित्र भाव से तब चिता भासता का पाठ सुनता था। प्रत्येक आदिश्रद्धानन्द के हनुमान कलशा का एक टापर पर खड़े होकर सौ बार पाठ करने के लिये नमक भूच भोजन करता था। सप्तिहर को स्कूल

से लौट कर जो बाल काण्ड का आरम्भ करता तो आदिश्रद्धानन्द की बात तक लका काण्ड की समाप्ति कर देता। आज मेरा बेटा नास्तिक हो गया है। हे ईश्वर मेरी पुकार सुन। मेरे बेटे की खा कर और मेरे परिवार को फलित होने से बचा।

ईश्वर ने नानकचन्द की पुकार सुनी
विवाद के समुद्र में गोता लगाते हुए नानकचन्द की प्रार्थना को परत काण्डिक परमेश्वर ने सुन लिया। ईश्वर की लील विधिर है। जब उसके भगत को वारो तरफ अन्धकार ही अन्धकार दिखाई देता है तब उसकी करुणा भक्त के परित्राण के लिए दिव्य प्रकाश के रूप में प्रकट होती है। मूसीराम 23 वर्ष के नवयवक हैं।

दयानन्द की सभा में उपद्रव रोकने का दायित्व बास बेरी की कोतवाल नानकचन्द पर था। महर्षि का भाषण सुनकर कोतवाल साहब को विश्वास हो गया कि यह आदिश्रद्धानन्द व्यक्ति मेरे पुत्र को पुनः आस्तिक बना देगा और मेरे नास्तिक बेटे के सब सख्त दूर करेगा। बात को घर आते ही पुत्री बाप ने अपने बेटे से कहा— 'बेटा मूसीराम! एक दम्भी सन्ध्यावा आये हैं बड़े विद्वान और योगीश्वर हैं। उनकी वक्तुता सुनकर तुम्हारे सब सख्त दूर हो जायेंगे। कल मेरे साथ चलना। नास्तिक बेटे की प्रतिक्रिया थी कि केवल ससक्त जानने वाला क्या बुद्धि की बात करेगा? पिता का मन रखने के लिए दूसरे दिन मूसीराम महर्षि का भाषण सुनने चला गया। उस दिव्य आदिश्रद्धानन्द मुँह को देखकर मूसीराम श्रद्धानन्द हो गया और 'नब पारसी' ने जो स्कॉट और दो तीन अन्य यूरोपियनों को 'नरुत्ता' ग 'बे' नचा तो श्रद्धा और भी जग गई। अभी तब मित्र वक्तुता मूसीराम की थी कि मन में विचार किया— 'यह विचित्र व्यक्ति है कि कवल 8 कला होत ह, ऐसी बुद्धि युक्त बालो दे रहा है कि विद्वान 100 से ऊपर। व्याख्यान परमात्मा के निज नाम ओम् पर था। महर्षि के व्याख्यान को सुन कर आनन्दानुभूति का वर्णन करते हुए स्वामी श्रद्धानन्द ने लिखा— 'यह पहले दिन का आंगिक आह्लास कभी भूल नहीं सकता। नास्तिक रहते हुए भी आत्मिक आह्लास से निम्नन कर देने का दृष्टि आत्मा का हो काम था। परन्तु मूसीराम का सख्त अनी भी दूर नहीं हुआ। उनकी प्रतिक्रिया थी कि यदि ईश्वर और वेद के वक्रोत्तरों को पकड़ता दयानन्द स्वामी तिलाविल दे दे तो कोई भी विद्वान उनकी अपूर्व बुद्धि और तर्कना शक्ति का सामना करने वाला न रहे। मूसीराम को अपने नास्तिकपन पर बहुत अभिमान था। एक दिन ईश्वर के अस्तित्व पर आक्षेप कर डाले। पाप मित्र के

प्रसन्नोत्तर में ऐसे फिर यवे कि जिह्वा पर गुल्ल लग गई। मुनीराम ने कहा—'महात्मा! आर्यकी तकनीक सफ़ी चीज है। आपने मुझे बुध तो कर दिया परन्तु वह विश्वास नहीं दिलाया कि परमेश्वर की कोई हस्ती (अस्तित्व) है। दूसरी बार फिर ऐसीही कर के यवे बन्धु परिवार पुरूस की निकला। तीसरी बार फिर पूरी तैयारी कर के गया परन्तु तर्क को फिर पकड़ नहीं। मुनीराम ने फिर अंतिम उत्तर यवे दिया—'महात्मा! आर्यकी तकनीक सफ़ी चीज है आपने मुझे बुध तो कर दिया परन्तु वह विश्वास नहीं दिलाया कि परमेश्वर की कोई हस्ती है। महात्मा फिर पहले उसे फिर यामीर स्वर से कहा—'देखो! तुमने प्रश्न किया यवे उत्तर दिये वह युक्ति की बात थी। मैंने कब यह कहा था कि मैं तुम्हारा परमेश्वर पर विश्वास करूँगा। तुम्हारा परमेश्वर पर विश्वास उस समय होगा जब वह प्रभु स्वयं तुम्हें विश्वासी बना देंगे। भद्रता और दुरात के पाटो के बीच में

जब मुनीराम मुनि और मुनि की रस्साकशी में पड़े यवे। एक तरफ़ विश्वास वास्तव के अनुसार की प्रवृत्ति मुनीराम को अपनी तरफ़ खींच रही है और दूसरी तरफ़ कर्म की बलित गुंजाए अपनी ओर। इस रस्साकशी में मुनीराम विचलन हैं।

वेरया के कोठे पर

इसके बाद मुनीराम ने फिर ज़रनीती सारा भे। सारा ने इतना जोर दिया कि पांव जमीन पर नहीं पड़ता था। मित्र के साथ वेरया के घर जा पहुँचे। कोवलास साहब के पुत्र को देखकर सब सलाम करके खड़ी हो गईं। घर की बड़ी नाई को हुनम हुआ कि गुजरत समाज जाए। उसकी नीची के गला कोई चमय देते वाला बैठा था। उसके आगे ने देर हुई। प जाते मुनीराम के मुँह से क्या निकला। सात घर कर्मने लगा। नीची चबराई हुई दौड़ी आई और सलाम किया। अपने कर्मा मानने के लिए हाथ बढ़ाया और मुनीराम नामका नापाक कलते हुए नीचे उतर आया।

मुनीराम गर्भ की भावना सुनकर मोहित तो हो गए परन्तु विश्वास वास्तव की गवकल लहरे याप सागर से उठे बाहर नहीं निकलने दे रही।

मधु गरी सलाम आती प्यालों की मालाए

अबके जो इतिहास कलें जो केन्द्र करती अकार को गर्भ के दर्शन किये पाव वर्ष हो गए हैं। मेरे वेतन मन पर विचारों का आधिपत्य है और अवचेतन मन में दयानन्द बैठा है। दोनों के बीच महासमर किया हुआ है। विचारों के अनुसार मन्त्र भविष्य वास्तव की उत्तरियाँ से मुनीराम को सारा खींच रहे हैं। मुनीराम सारा की गवकल गरी में बहे जा रहे हैं। 28 वर्ष की अवस्था (संक्षिप्त 1941) जालसर से लोहौर कालाती की पश्चिम के सिरे जाने के उपलब्ध वे दोस्तों की फिर दावते बुक हो गईं।

अधकार की अन्तिम रात्रि

महा-साज-सामने-पीने वाले हम प्याला हम गिलावा मित्रों ने दावत देना शुरू कर दिया। प्रत्येक शाम को किसी न किसी स्थान के और चलते। एक दिन बड़े वकीले के पास निमन्त्रण था। वहां खुला और पस्ता और तो सब अपने-अपने घरों पर चले गये और मुनीराम के साथ रह गया 'पाचों पैर हाथों बाके मुक़दत। बाहर निकलते ही मित्र अडकबादे लगा। कलें घड़े की चढ़ी हुई थी। मुनीराम बादे किनारी रुक पी लेते पर हाथ नहीं चले गये। अपने मित्र को वे हावर की गलियों की गुल मुलेया के अन्ध विश्वास महात्मा पर छोड़ गये। लम्बकलते मित्र की ओर ने एक हाथ और दूसरे हाथ से उसके हाथ को सहाय देते हुए जा रहे हैं। मार्ग की एक गली में मुनीराम अपना हाथ छुसकर एक घर के अन्दर मला गया। पीछे-पीछे मुनीराम भी जब उस घर में चले गये तो देखा कि एक देखा देती थी। मुनीराम ने मित्र की गलियाँ सहाते हुए भी उसे कहा से चलेका और घर पहुँचा जब अपने मित्र के घर लौट आये। सारा मित्र के सहा मुनीराम अतिथि बनकर रह रहे थे वह मित्र की मोलत खोले बैठा था। फिर दौरी चलने लगा। आर्यी कोसल सहे जाते जो दोनों ने समाज की और दूसरी मोलत खुल गईं। उसी ने मे अरुणी एक बार 94 की पसया था कि मेरुमान की आपने से बाहर खेने लगे। मुनीराम ने उन्हे पीने से रोक कर सोने को

कहा। इस घर का बीच का किनाड़ा चोलत सारा के कर्मे में पलत गया। उसके जाले ही मुनीराम ने एक बार और की ओर और दूसरी बार पलत करने की सोच ही रहे थे कि सारा के कर्मने से बीच की आयाज आई। मुनीराम किनाड़ा कोलत अन्दर पहुँचे तो देखा कि एक युवा देवी उनसे कलत मित्र के समान में छटपटा रही है और वह उस पर पारसविक आक्रमण कर रहा है। यदि मुनीराम को तो मित्र की भी किमल हो गया होता तो बामद उसके पतिव्रत धर्म की आजा न हो सकती।

मुनीराम ने उस नराम मित्र के दोनों हाथ पकड़ कर उसे प्रवेल दिया। वह गिर और देवी कापट्टी हुई अन्धर भाग गई। पितराय मित्र को जबरदस्ती उसके पसंग पर सिटा कर मुनीराम बाहर आ गए। उनका गत सारा जीवन मानसिक दृष्टि के आगे पूरने लगा और सब से पूरा वैराग्य उत्पन्न हुआ परन्तु पुराने अयास के अनुसार वह सुखी कि सौष मोलत समाप्त करके सारा के सिरे उसके प्रलोभन से मुक्त हो जाए। इस विश्वास से पूरा बड़ा गिलास पच थी था कि मानसिक दृष्टि के सामने से एक और पल उठा और यति दयानन्द की मिलात मुक्ति कीपीन समाने खरीर में विभुति समाने और सारा में मोटा लटव सिरे सामने आ खड़ी हुई। ऐसा जवा मोने महत्ता वह रहे हैं—यव अब भी परमेश्वर पर तैरा विश्वास न होगा? आख गली मुँह की सारने में थी परन्तु हदय कार उठा। उनका कर्मसा दृष्टक की एक ओर था जहा किसी दूसरे पर की दीवार भी गिलास उठा कर जो फेंका तो सामने की दीवार में लाग कर बू—बू हो गया। फिर मोलत उठा कर जेरे से फेंकी वह भी दीवार में टकरा कर टुकड़े-टुकड़े हो गई।

आचार्य का आदेश पूरा हो रहा है

अभी मुनीराम सारा के झूले में झूल रहे हैं। झूले आत्मिक शांति का मिलेगी? कभी वे आर्य समाज जाते हैं कभी भागते हैं। ब्राह्म समाज के सतिन्याय में उन्हे बहुत प्रतिक्रिया आई और 5-6 दिन तक ब्राह्म समाज का सतिन्याय पढ़ते रहे। पुनर्जन्म और कर्मफल के प्रश्नों पर ब्राह्म समाज की विद्वानों के उत्तरों से उन्हे स्तोत्र नहीं हुआ तब पारसी स्फोट के साथ आचार्य दयानन्द के कारखाना का प्रत्यक्ष आका। फिर वे सारास प्रकाश लेने आर्य समाज गये और सारास प्रकाश लेने सारा प्रकाश गई विश्वर होकर लौटे याने बड़ा कोस हाथ लग गया हो। सलत 1941 का माघ मास और आदिवासा का दिन है। मुनीराम अपने कर्मने में बैठे हैं और मेज पर सारास प्रकाश का आयाज समुल्लस खुला पड़ा है। इतने में मुनीराम जी के मित्र बुधरायसर कोसने में प्रवेश करते हैं और पूछते हैं—'किस विचार में हैं कलिते कुछ निमय हुआ? मुनीराम ने उत्तर दिया—मुनीराम के सिद्धान्त में फँसता कर दिया। आज मैं सारा किमलत से आर्य समाज का सभासद बन सकला हूँ। इस उत्तर को बुधराय बुधराय की प्रसन्नता की सीमा नहीं रही और वे मुनीराम को लेकर आर्य समाज चले गए।

आर्य समाज का दीयाना

कालात के साथ-साथ आर्य समाज का प्रभाव करना उनके जीवन का श्रेय बन चुका है। अब मुनीराम प्रगत करके अपने साधियों के साथ एकतरा लेकर निकलते और आलाप के साथ वैराग्य ब्रह्म गति की ईश्वर सुखी के भजन गाते। मोल्लेले और मली की बीच-बीच खडे होकर एक पसंग पसंग चले और एकतरा पर स्वर छेदते आगे चल रहे हैं। मुनीराम को देव कर एक मला ने कहा—'मैसाय ब्रह्म बन कर कीर है। केवल भजन या रहा है और मायता कुल नहीं। फिर माता आयाज लगाती-ओ पाई! और ले जे। कई देविमा उन्हे निमरमान सारा की अनाज पैसा डुलनी कहाँ लीकली अपने में सारा जाती।

पुत्री पाठशालाओं की स्थापना

एक दिन जब मुनीराम जी कलहरी से आये तो उनकी पुत्री मेव बुधारी भागती-भागती आई और गीत सुनाने लगी—

'न ईस ईस—ईस तोस लेता क्या लगेना कीर।

ईसा मेस राम रसिया ईसा मेव कृष्ण कर्मका।

मुनीराम जी की पक्ष के कि ईसायायों के रक्खुलें में हमने घरों के विरुद्ध जहर उतारा जाता है और ईसाई कर्म का प्रभाव होता है। दूसरे दिन उन्होंने विश्वास को आर्य समाज, पालसर में पुत्री पाठशाला खोलने का प्रस्ताव रखा जो सर्व सम्मति के

रखीका हुआ। इसके बाद पलाय के खर-खर और गम-गम में पुत्री पाठशालाओं का जाल बिछ गया और नयी शिक्षा की झलति का गीतगम हुआ। जिस विचार को वे लिसात आर्य कथा महाविद्यालय है उसकी स्थापना इती अवसर पर हुई थी।

मौत का ताप्यद नर्तक और मुनीराम का कैर्य मुनीराम जी की प गुल्लत के प्रति आगत बदा थी। वे उन्हे आर्य समाज का सभासद रहे। उनकी विद्वता सलसता और निरलस बलदर ने उन्हें बहुत प्रशंसित किया था। पलाहरी आर्य समाज प गुल्लत के सगुने में और बड़ अलोकाय थे। प गुल्लत की अकल कृष्ण ने मुनीराम जी को बहुत बलित किया और पुत्रकी जगता थी कि इस बलित की पूर्ति नहीं हो सकती। इसके बाद निर्मोका त्याग बसिदान की प्रति मुँह में मुनीराम प लेखराल की हस्ता हो गई। जैसे कि मुनीराम जी का दावा हाथ टूट गया हो। इसके बाद उनकी साधनी एक पतिव्रत पत्नी शिवदेवी का निमन हो गया। उस समय वेव बुधारी 16 वर्ष की और हेमन्त बुधारी 8 वर्ष की और रमेश्वर 4 वर्ष का और इन्द्र 2 वर्ष का था। अब मुनीराम इन बच्चों के माँ और बाप दोनो थे और उस समय उनकी आयु केवल 35 वर्ष की थी।

सर्वमेघ यज्ञ

साधनी एव पतिव्रता मधु भागनी नमता की प्रतिभूति ऐसी शिवदेवी के निमन के बाद मुनीराम जी का जीवन सर्वमेघ यज्ञ हो गया और वे वलसता के साथ-साथ सारा पलाय में आर्य समाज की धून मचाते रहे और पलाय की पाचों गदिया आर्य समाज की आगे से खलने लगी। 1908 में फिर मुनीराम की स्थापना की धून सारा हुई और आर्य समाज की आग उमलने वाली एक महा पतिव्रता इन्द्राई पलाय में पोषणा कर दी कि जब तक गुल्लत के सिरे 30 हजार रुपये इकट्ठे न कर लेंगे तब तक घर में पत्र नहीं रखेंगे। गुल्लत की स्थापना के सिरे उन्होंने वकालत का परिचयाय कर दिया। सलत 1909 में अपना पुत्रकालय गुल्लत के सिरे अंतिम कर दिया। सलत 1908 में सदाय प्रभावकर प्रेस पर 30 हजार रुपये की जालसर की कोठी गुल्लत को अंतिम कर दी। इतिहास के पास पने जगलें से बीष भीषी मुनीराम सिरे नामक एक वानवीर ने बाहर रही थी। अपनी गुल्लत से सिरे दान में थी। 24 मार्च 1902 को गुल्लत का उद्घाटनोत्सव हुआ और 45 ब्रह्मचरियों का वैराग्य सलसर हुआ।

वह गुल्लत मानवता की शिक्षा देते वाला विश्व केन्द्र बन पला और विश्व के समस्त शिक्षा कर्मज्ञ सामाजिक एव पारमार्थिक मेस इस झलितकरी प्रयोग को देखने के सिरे आए। आधुनिक विश्वकार ईसाभरि का दिन सलत के सिरे पने आया। इन्ही पने आर्य समाज की शिक्षा को सिनी में देने का समर्थन लिया गया। गुल्लत का ज्येष्ठ ऐसे नवयुवक तैयार करना था जो वैदात्मक्य करके सारा को आर्य बनायें और देश की स्वामीपति के सिरे अपना जीवन समर्पित करें। महान्त माती तो अनेक बार गुल्लत में आचार्य मुनीराम का आशीर्वाद लेने आया करते थे। इन्हीमे के प्रधानमन्त्री देजे मेकडोनल्ड आचार्य मुनीराम का दर्शन करके मेर-मौतो से रहे नवकर जगम में आए। इन्हीमे वसित सारा पर अपने सलसर चुनते हुए ईश्वर मेकडोनल्ड ने कहा—

'एक महान भव्य और सामदार मुँह जिसको देखाते ही उसके प्रति आदर का भाव पैदा होता है हमारे भागे हमने मिलने के लिए ईसाभरि ईसाभरि ईसाभरि का दिन सलत के सिरे पने आया। इन्हीमे वसित सारा पर अपने सलसर चुनते हुए ईश्वर मेकडोनल्ड ने कहा—

इन्हीमे के प्रतिपद पत्र डेलीकोनिनस में उनके सलसर प्रशंसित हुए जिसमें उन्होंने वकालत प्रवृत्त करके हुए कर्म—सन् 1935 के प्रतिपद लेने में भारत की शिक्षा के सभमें में वह महत्ता प्रस्ताव सलत किया गया है। उस सभ के परिणामों में प्रकट सभी भारतवासी असन्तुष्ट है किन्तु जहा तक उनका कल्लु है गुल्लत के सलसक्यों के सिरे किसी और न पलाहरी कर्म को कार्य में परिवर्तन करके हुए शिक्षा के क्षेत्र में न पलाहरी नहीं किया है। इतिहास सलसर गुल्लत को अन्तिम सलसर के

शेष वसित पट्ट कर

related to effects of the films and an attempt to arrive at generalizations about what kinds of film contents elicit desirable and undesirable comments by the audience.

ANALYSIS OF AUDIENCE EVALUATIONS OF THE ORIENTATION FILMS

In each of the orientation film studies, evaluations by the audience were obtained by questionnaire responses or by group interviews of men who had seen the film. The main purpose of obtaining these audience-evaluation data was to provide the film-makers with information which would assist them in producing films better calculated to win the *approval* of their soldier audience. For this purpose, part of the research took the very simple form of getting the significant approval and disapproval responses of the men for a given film, classifying them according to the content of the criticisms and origin in the film, and preparing a report composed mainly of quotations of typical comments, with a rough indication of frequency. In addition, an attempt was made to keep track of any categories of criticisms that recurred with successive films, in which case there would be a presumptive basis for making generalizations applying to future production of all such films.

Similar audience-evaluation studies were also made of a series of "general interest" films in which the interest and approval of the audience were the main criteria of the success of the films and where there was, consequently, no experimental measurement of effects.

The other phase of the research was an attempt to relate audience evaluations to orientation film effects. For this purpose audience evaluations were obtained at the end of the same questionnaires used for the experimental evaluation of the orientation films. In this way individuals' comments about the films could be related to experimentally determined effects of the films in changing their information and opinions.

In the present chapter, material from both phases of audience-evaluation research on orientation films will be presented. A description will also be given of the evaluation procedure and results for the study of a series of "general interest" films.

Procedures Used to Study Audience Evaluations of Orientation Films

1. *Questionnaires.* Always included in the questionnaires used for the experimental study were several items permitting the mem-

bers of the group who had seen the picture to record their reactions to it. These items were introduced by the question: "During the last two weeks did you see any of the movies on the history of the war that were shown to men here in camp?" This was followed by a question asking the men to designate what the film was about. This insured that they actually were talking about the film being studied rather than one of a number of training films or commercial features they might have seen. (As part of the experimental design, other orientation films were not shown to any of the men involved during the period of the experiment.) To avoid having the mention of the film affect the men's answers to other questions, these items about the film were put at the very end of the questionnaire. Particularly useful were the men's statements as to whether they liked the film, what they thought its purpose to be, and whether they believed it gave a true picture of the facts. Inclusion of items on these topics in the experimental schedule not only was economical (in that film evaluations and experimental results were obtained from the same samples of men) but also permitted analysis of the relationship between the men's evaluation of the film and its effect upon them.

Another type of questionnaire, used in obtaining audience evaluations in the study of Film 2, was a short questionnaire made up primarily of questions about the film. In this case, of course, the men involved were not used as experimental subjects. They were shown the film and then told that the film-makers wanted to know in some detail what they thought of it. This procedure permitted detailed questioning on many aspects of the film and had the practical advantage of getting extensive comments economically from a large sample, an advantage lacking in the interview procedure to be described next.

2. *Procedure with group interviews.* To supplement written comments by the men, personal interviews were also employed. It was found that for the purpose of getting ideas for improvement of the films and for discovery of some of the detailed reactions to the film, group interviews were fairly successful. In addition to the economy of time involved in using group interviews instead of individual ones, the group interviews provided social stimulation in getting men to express their opinions.

For this purpose a sample of about 150 men was selected so as to be a roughly representative cross section with respect to age, education, etc. These men were not a part of the experimental group

who saw the film but were given a separate film showing. After the film showing, these men were assembled in groups of 10 to 12 men each and questioned about their reactions to the films. It appeared to work out well to have the groups composed of about this size although no comparisons with larger or smaller groups were made. Each interview group was fairly homogeneous with respect to intelligence as indicated by the men's educational level and by their scores on the Army General Classification Test. Experience indicated that in more heterogeneous groups the tendency was for the better educated and more articulate members of the group to do all of the talking, leaving little indication of the reaction of less intelligent and less articulate men.

The setting for the interviews was usually a camp recreation hall, with the men and the interviewers seated informally around in a circle. Considerable effort was made to keep the situation as informal as possible by encouraging the men to smoke, providing comfortable chairs, etc. The groups were interviewed successively by the same personnel rather than concurrently by different interviewers. Thus it was possible to accumulate experience as the interviews progressed and follow up leads obtained with early groups. The first group was generally started immediately after the film and successive groups were scheduled on the hour. Thus the time after seeing the film was variable from group to group but was brief relative to the time interval used in the experimental investigation. It was felt that the function of the interviews was best served if the details of the picture were still fairly fresh in the minds of the men.

As soon as a group had assembled for an interview, a brief introduction designed to gain as much rapport as possible was given by one of the interviewers, who explained that the purpose of the interview was to get men's criticisms and ideas about the film in order to assist the film producers in making better films in the future. It was found advisable to assure the men that the interviewers were not themselves the producers of the films, and to use other devices to encourage the men to be as uninhibited and critical as possible.

Before the beginning of the interview proper, the men filled out a short questionnaire. This permitted obtaining an independent appraisal by each man before he had heard the evaluation of the other men in the group, and also permitted correlating biographical data asked for on the questionnaire with the statements made in the interview. Once the interviewing was started, all questions

and answers were recorded by a stenographic team seated unobtrusively in the background.

In order to get responses that were as unbiased as possible by the type of questions asked, the interviews were opened with extremely general questions to which men's responses were obtained before proceeding to more specific points. These general questions inquired as to whether the men had liked or disliked the film and why; what had impressed them the most about it; what they felt they had learned from the film; how they thought the film could be improved, what particular things about the film they had liked or disliked, and so forth. Answers to these general questions usually led into more specific questions. The framework for asking the latter was provided by making an advance outline of the points which the interviewer wanted to get at (including probes to get at men's possible negative reactions to specific sequences in the film). Additional questions were asked to get at more details concerning revealing remarks, sometimes of an unexpected character, that men made during the course of the interview, or to get the reaction of the other men in the group to a comment made by one of the men.

Results of Audience Evaluations of the Films

The findings presented here are from the questionnaire items dealing with the film and the comments of the men in the group interviews. Data for all four of the orientation films studied are included wherever available. In general, the results are presented topically rather than by source, so that data bearing on a particular question, such as interest or skepticism of the films, are presented together rather than being taken up separately for different films and different interview or questionnaire sources.

1. *Liking for the film.* At the end of the experimental questionnaires, following the previously mentioned questions about whether the men saw a film on the history of the war and what the film was about, was this question: "If you saw one of the camp movies mentioned above, did you like it?" Of those indicating they saw the film, the proportions checking each of the answer categories are shown below for Film 4 and for Films 2 and 3 combined.²

² Results for "Prelude to War" are omitted because different answer categories—that did not discriminate sufficiently—were used. On the basis of the "Prelude to War" results it was found necessary to break the "like" category into "very much" and "fairly well" in order to make the question more discriminating by reducing the proportion choosing the superlative category.

| Answer categories | DISTRIBUTION OF RESPONSES | |
|-------------------|--------------------------------|--|
| | Film 4 "The Battle of Britain" | Films 2, 3 "The Nazis Strike" and "Divide and Conquer" |
| Yes, very much | 77% | 64% |
| Yes, fairly well | 16 | 25 |
| No, not very much | 4 | 5 |
| No, not at all | 2 | 5 |
| No answer | 1 | 1 |
| | <hr/> 100% | <hr/> 100% |

Favorable results of this sort are always reassuring to the producers, but difficult to interpret. The frequencies are meaningful only if the same question is asked of comparable audiences for a series of films. Then variations may indicate real differences in preference. However, in the present instance only an approximation of the desired conditions was possible. Audiences of the different films were not strictly comparable. Furthermore, it is possible that the interest of men shown a series of films might have increased (or decreased) progressively, although their interest in any one of the films (had they not seen the series) might not have been noticeably different from the others. Given the present conditions, we can only say that the results suggest that "The Battle of Britain" was better liked than "The Nazis Strike" and "Divide and Conquer," but the results must be considered in the light of the limitations mentioned.

Since the great majority of the men liked the films, a special analysis was made of the minority who said they did *not* like them. As compared to men who said they liked the films, those who did *not* like them tended on the whole to be less well educated, to have foreign-born parents (particularly from Axis countries), to come from smaller cities and towns, and to have isolationist attitudes. In the case of "The Battle of Britain" the men in the "dislike" group were also more likely to feel that they ought to be civilians rather than in the Army and to blame Britain for our entering the war.

In response to a further question "What did you like about the film?" a great many interesting comments were obtained. Most of these merely expressed principal content themes of the picture in the men's own words. The comments were classified and turned over to the makers of the films to give them the men's own ways of expressing ideas and their detailed reactions to various parts of the film, as a guide to possible changes in later films in the series.

2 *Fairness of presentation.* To get information as to men's evaluation of the truthfulness of one of the films ("The Battle of Britain"), the following question was asked: "If you saw one of these movies [referred to in a previous question], did you think it gave a fair and accurate picture of events?" The distribution of answers to the three check-list categories among men who reported seeing the film is shown below:

- 65% checked "Yes, it gave a true picture of what was happening."
- 33 checked "It was true in most respects but it seemed to give a one-sided point of view at times "
- 2 checked "No, it did not give a really true and honest picture of the facts "

100% total

This question has some of the same difficulties of interpretation as the question about how well the men liked the film. However, if taken at face value it indicates that the great majority of the men accepted the film as either mostly or completely fair and accurate in its presentation of the events. The same general tendency was shown in answers given in supplementary film-evaluation questionnaires concerning Film 2, "The Nazis Strike." The men were asked the question, "Do you feel that the film . . . shown here gives a true picture of the facts about the war, or do you think it gives an untrue and one-sided picture?" Of those answering, 81 per cent checked "a true picture of the facts," 18 per cent checked "mostly facts, but a little untrue or one-sided in places," and less than 1 per cent checked "mostly untrue or one-sided."

3. *Manipulative purpose* In the study of "The Battle of Britain," an item was also included asking men "What do you think was the reason for showing this movie to you and the other men?" This question was accompanied by space to write in an answer rather than having a check list of answer categories, and its purpose was to permit those men who suspected the film of being propaganda, or who suspected they were being "guinea pigged," to write in an appropriate comment. It was expected that this question would raise no suspicions in the minds of those men who had none but would be used as a vehicle for expressing suspicions among men who already had them.

The majority of answers were classifiable simply as statements that the reason was to teach them the facts of the war. A code

category was established which classified all answers that implied a manipulative motive to the film showing exclusive of the attempt to teach historical facts. Such answers as "to raise our morale," "to improve the fighting spirit," "to make us want to kill those sons of bitches," "just for propaganda," etc., were included in this category. With this classification, 27 per cent of the answers suggested that the film had as its purpose some aim of manipulating the attitudes and motives of the men. Only a negligible proportion of these answers used the word "propaganda" in their statement of what they thought were the reasons for showing them the film. Evidence of this sort is useful in indicating whether or not a substantial proportion of an audience believes that the film was propagandistic. The evidence in this study indicates that in terms of either the falsification connotation or the manipulative aspect of "propaganda" the film was not regarded as propagandistic by the great majority of the men.

4. *Interview comments on propagandistic aspects* Although only a minority of the men criticized the films as partly or wholly propagandistic, this minority might be regarded as a particularly important segment of the total audience. These men were for the most part in the better educated group who are more articulate and perhaps more likely to influence the reactions of their fellows to the film. For this reason, it appeared useful to investigate in the group interviews the particular types of content or aspects of presentation which tended to evoke the reaction that the films were propagandistic in their method or intent. It was felt that to the extent that criticism tends to cluster around particular procedures which may recur from film to film, the already small proportion of individuals making this criticism might be further reduced to a significant degree by correcting the types of things that appear likely to lead to a "propaganda" reaction.

In the interviews, as in the questionnaires, the great majority of opinion was favorable to the films and few of the men volunteered statements that the films were propagandistic. But when such a comment was volunteered, it was fairly intensively followed up with questions directed to all members of the group. If the subject was not brought up by one of the men, the question was raised and followed up by the interviewer before the end of a session.

It was observed that the term "propaganda" had several meanings for the men. In general, the two principal interpretations were these. first, *untruthful or biased presentation*—distortion of facts;

and, second, a *manipulative purpose* or motive in showing the films, regardless of whether the attempted manipulation is accomplished by presenting only factually accurate material or also uses false or misleading material. In interview and questionnaire comments, in fact, the word "propaganda" appears to be used relatively infrequently, more often, comments that indicated questioning of either the authenticity or the purpose of the film were made without use of this term. The quotations that follow are representative examples of the kinds of comments made. The reader should be reminded that these comments are not typical of most comments about the films but restricted to those few comments elicited about the propaganda aspects. The majority of the quotations shown are from the stenographic records of the men's spoken comments during the interviews rather than from the preliminary questionnaires filled out by the interview groups. Some of these remarks were spontaneous, some were in response to another man's comments on propaganda aspects of the film, and some were made after a deliberate attempt by the interviewers to lead the discussion around to the subject of propaganda by direct or indirect questions.

(a) "*One-sidedness*" A fairly frequent criticism of the films, related to men suspecting them of propagandistic or manipulative intent, was that the films were "one-sided." Films 2 and 3 which showed the Nazi conquest of Western Europe were occasionally criticized as showing "only part of the picture." Some men objected that the film showed only the strength of the enemy, and that *our* military strength should have been portrayed also. Similar criticisms were made of the first film, "Prelude to War":

This picture shows the enemy as being pretty strong, but we have as much or more power than they have.

The fact of our enemy's strength instead of showing theirs—show a little of what we have

Comment suggesting "one-sidedness" in a more general sense appeared less frequently. The following quotation is illustrative:

If all circumstances were laid bare . . . would the picture still convey your meaning?

The criticism of one-sidedness came up quite frequently with respect to the fourth film, "The Battle of Britain," where it took the form that British losses were deliberately underplayed.

It was one-sided. It never showed any English planes being shot down.

I think that it is too much like fiction when it is too one-sided. It does not seem possible . . . because it was so lopsided. A few planes go up to destroy a large number of planes and the small number return whereas the large number is defeated.

There was only one English plane that fell during the picture and mostly German planes went down. I believe they should show more of the British losses.

(b) *Repetitious shots*: Consistently criticized from film to film in indicating what parts of the film seemed "fake" or "untrue" was repeated use of identical or nearly identical scenes in the visual material. For example, some of the men felt that the action shots of planes in combat, both in "The Battle of Britain" and other films, were padded by using the same shot over and over.

There was too much repetition of scenes that were first filled in to make a picture. It was too noticeable, such as the shattering of a wing section of a plane shown over and over.

Where the British pilots shot down the German planes it looked in the picture like the same picture was used.

The picture itself had too much repetition like a propaganda picture. Those parts that were filled in like the four shots just the same of a wing section on the plane being torn away.

(c) *"Exaggeration," "unrealistic" or "overdramatic" presentation*: The theme of the calm, courageous spirit with which the British met the Nazi attack was generally highly effective throughout "The Battle of Britain." But certain of the sequences came in for criticism as being overdone.

Was the spirit of the British people really as light as the picture indicated?

Did the people of England take everything as calm as the movie shows?

In this connection the scenes showing the fortitude of the people as a whole were not questioned. Scenes of the British people in large groups seemed real, but shots involving individual reactions were suspected of having "the Hollywood touch."

The scenes were more like they were acted. The whole groups of English people seemed real, but the old man and woman and a couple of others seemed just a little bit too dramatized.

It looked faked. You'd think they had a camera all set up to take it. [Referring to a humorous shot of two men repairing a cable during a London air raid—a shot which was otherwise generally approved.]

Such comments also appeared, less frequently, with respect to the other films of the series.

(d) *Source of film materials:* A consistent and relatively frequent basis for expressed suspicion of the films arose from men's apparent inability to understand where certain pictorial sequences had been obtained. This basis for suspicion appeared with appreciable frequency for every film on which group interviews were conducted. To counteract this reaction some of the later orientation films carried an explicit introductory statement indicating that the source of many of the pictures was "captured enemy film." The effectiveness of such an initial explanation is a matter for speculation, since no tests were made of parallel presentations of any film with and without this description of the source of the material.

Questions as to the source of film material occurred with greatest frequency concerning pictures taken in enemy territory. Some men concluded that any pictures showing the enemy in enemy territory must have been faked. To such men all captured footage was regarded as unauthentic. Many who did not think of the pictures as actually faked were curious as to how they could have been obtained, and often skeptical.

Those pictures of Hitler and Goering mapping out plans . . . how did they get them?

Are the scenes depicting the German Air Force authentic or are they of the Hollywood style?

I do not believe some of these were really pictures of Hitler—just men made to look like Hitler.

I don't think they were real . . . because if anyone would get that close to him [Hitler] they would shoot him

(e) *Close-up shots in combat:* A related form of criticism occurring in the case of "The Battle of Britain" was that when the film portrayed action close-ups some men wondered how a cameraman could get such pictures. Often they concluded these must have been Hollywood production shots. In some cases this conclusion was correct since occasionally the story was tied together with production footage as in a scene showing the reaction of German fliers to the British attack.

Most people know that those planes are so fast that it would be impossible to get those close-up shots of enemy pilots.

How could they film the actual men in a German bomber?

In other instances, however, the men criticized shots merely because they did not know that most fighter planes carried cameras that were synchronized with the machine guns to verify enemy losses and to instruct fighter pilots.

I heard several fellows say they wondered how those pictures were taken when it showed the RAF and the Nazis in dogfights.

(f) *Favorable reactions to "propaganda"*: Not infrequently when the question of propaganda was raised a favorable reaction to propaganda in the film was obtained. Some men felt the film contained propaganda but thought this was necessary or desirable.

I think the picture is well presented with the touch of propaganda that every war film needs to keep morale up. Too much propaganda is out, though

I think there is some propaganda mixed in every now and then to help bolster morale. It had just enough

5. *Men's suggestions for improving the film* In the preliminary questionnaire of the interview groups, questions were asked concerning the men's suggestions as to what should be taken out or added to the films to improve them. These items were found to have very limited usefulness. The men did not view the picture as critics and asking them afterwards to assume such a role led to sterile replies. Most frequently they merely said the film was "O K." and that nothing should be taken out or added to it.

Product-improvement suggestions dealt mainly with film content, although occasionally comments on the technical aspects of the film were made. These two categories of comments are illustrated by material from the group interviews in the study of "Prelude to War."

I would like to have understood more clearly why the Allied nations did not prepare for war too

Some might be added on the rise of the different dictators to power. How they achieved such great power

Hard to hear. Speaker voice too mild. A poor movie, from a professional standpoint. Good subject matter tho

Of the comments made, many were contradictory: for example, some men suggested in the study of "The Battle of Britain" that more be shown on British planes and equipment and less on civilian participation, others said exactly the opposite.

6 *Attempts to infer effects from audience-evaluation responses*
The interest in interview comments was sometimes so great that the producer tended to infer from the comments the nature of the effects of films on attitudes, opinions, and factual information. Obviously, however, such interview data constitute an inadequate method for determining these effects of a film. Group interviews could possibly be used as an alternative to questionnaires as a means of measuring responses, but it would be necessary to have control interview groups that had not seen the film as a baseline against which to determine the film's effects, and direct mention of the film would have to be omitted in both the control and the experimental interviews. This is quite a different situation from the present one in which the film is the topic of discussion and there is no control group.

In some instances, effects suspected on the basis of group interviews were actually found when the results for the experimental measurements were analyzed, but in other cases suspected effects, which some of the interviewers fully expected to materialize on the basis of what men said at interviews, were completely absent in the experimental data.

For example, the frequent comments of the men about the effect of the film on their "fighting spirit" led some interviewers to expect sizable effects of the film on men's willingness to fight. Comments of the following type were very often obtained.

The film was very stirring. I was fighting mad at the brutality of the Nazis.

It made me feel like killing a bunch of those sons-of-bitches

But experimental measurement with questions about combat service showed that no real change had occurred in the percentage expressing willingness to get into combat. It is, of course, possible that the films sometimes had the effect of intensifying already existing attitudes such as the desire to retaliate against the Nazis, without increasing the number of men holding such attitudes. This could not be proved or disproved by the present studies, due to the absence of adequate measures of intensity of feeling

As another example, interview comments suggested that many of the men interviewed after seeing "The Battle of Britain" had an exaggerated idea of the extent of American aid to Britain, and that one or two scenes in the film created or bolstered a conviction that the United States had won the Battle of Britain by providing the material used to defeat the Nazis. Such comments as the following were not infrequent:

I think they can thank the good old States that they are alive Everything in the fight came from this country

The point was brought out in the picture that all these countries that are fighting Germany are fighting with U.S. equipment

Tomahawks and Spitfires are both made in this country In other words we are sending the goods to England to keep them in the war

The inference from interviews that an effect on this belief had been produced by the film was checked experimentally when the study was conducted at the second camp The question used was:

As you remember it, how much lend-lease aid was England getting from the United States when the Nazis started bombing England after the fall of France? (Check one)

| | <i>Control</i> | <i>Film</i> | <i>Difference</i> |
|------------------------|----------------|-------------|-------------------|
| _____ a great deal | 44% | 38% | -6% |
| _____ a little | 36 | 40 | 4 |
| _____ none at all | 3 | 4 | 1 |
| _____ haven't any idea | 17 | 18 | 1 |

The film produced no increase on this question in estimates of the actual amount of aid we had sent to the British. As in various other instances, the impression gained from the interviews as to the men's ideas about the amount of aid sent by the United States was probably based on expressions of opinion by men who already held this point of view before seeing the film, rather than on effects of the film. The incorrect notion that we were giving much aid to Britain at the time of the German attacks was common before the film showing; its high frequency during the interviews was mistakenly interpreted as an effect of the film.

Relation of Audience Evaluation to Effects of Films

The foregoing results show degree of liking and disliking of the films, skepticism and lack of it, and indicate some of the contents that are singled out by the men as reasons for suspicion of the au-

thenticity of the presentation. Such data help relate audience evaluations to film contents. However, as mentioned earlier, there is the additional problem of relating audience evaluations to the teaching effectiveness of the films.

On a priori grounds, we would of course expect these factors to be of influence. Interest would be expected to bear a relation to effects, whether the purpose of the film was to produce attitude changes or to transmit factual information. An extreme example of the relevance of interest to attention was the situation obtaining with certain Army training subjects which were compulsory and were not "sold" as being important. It was observed that typically a significant number of the soldier trainee audience would sleep through an entire session of training films.

The additional factors of confidence in the integrity of the presentation (as opposed to skepticism of the film's authenticity and purpose) might be expected to be particularly significant where the film had the purpose of obtaining acceptance of interpretation of facts, i.e., of modifying opinion.

The analysis which follows is based on an orientation-film study in which effects were related to audience evaluations. Since there was no external motivation the film's effectiveness should be maximally affected by interest, and since a major concern was with changes in *opinion*, acceptance or skepticism would be expected to be important.

1. METHODOLOGICAL CONSIDERATIONS

The analysis requires the use of an experimental design in which questionnaires are given both before and after the showing of the film. This design is required because men with different evaluations of the film generally have different opinions on the subject presented by the film. The experience in the orientation-film studies was that initial responses on the significant opinions (related to the content of the film) generally differed among men who differed in their evaluations on such topics as whether they liked the film, whether they thought it truthful, whether they thought it was for propaganda purposes, and so forth. Thus it would be necessary to compare the various subgroups with their *counterparts* in the control group rather than with the control group as a whole, and it was not possible to identify in the control group those men who *would have* liked or disliked the film, thought it truthful, etc., if they had seen it. With the before-after procedure the initial attitudes of the

members of each group are known so the men can serve as their own controls

It should be pointed out, however, that even with the before-after design, the control is always partly incomplete in comparing two groups who have different evaluations of the film. While each man serves as his own control, there is no control on possible *differential effects due to other causes than the film* among the different evaluation subgroups. If it is found, for example, that men who thought the film was propaganda were less changed than other men in the period between the "before" and "after" measurements, it is nevertheless possible that this difference might reflect the differential effect of some outside cause that operates selectively on these two kinds of men. Complete control on outside causes is not possible for the reason already mentioned, namely, that it is not possible to identify in a control group, which did not see the film, those men who would give the designated evaluations if they had seen the film.

A further possible difficulty with using each man as his own control is that obtained shifts in response due to transient mood changes may be correlated with the evaluations of the film, giving rise to a spurious factor in the analysis. Suppose, for example, a respondent filling out the "after" questionnaire in the study of the "Battle of Britain" feels in a generous mood. As a result he gives more pro-British answers than before, and at the same time gives a favorable evaluation of the film. Another respondent with an opposite mood may swell the ranks of those who changed to more anti-British responses and at the same time give the film an unfavorable evaluation. The spurious factor is this correlation of errors in responses to the two kinds of questions, those measuring effects and those measuring evaluations. It seems probable that this spurious factor is small or absent—i e., that absence of correlation in errors of measurement would be the general rule. To the extent that such a factor is present, however, it cannot be separated from correlation of true evaluations and true changes in opinion if one merely uses each man as his own control. This is one of the weaknesses inherent in correlational as contrasted with experimental analysis.

2 EFFECTS FOR SUBGROUPS WHO "LIKED" AND "DISLIKED" THE FILM

All of the data here presented come from the before-after study (one camp) of the effects of "The Battle of Britain." As already noted, the question used in determining overall approval was the

simple one as to whether the individual "liked" the film or not, with the answer categories, "very much," "fairly well," "not very much," or "not at all." For the purposes of analysis, men in the film group who had indicated in answer to a preceding question on the questionnaire that they remembered having seen the film, "The Battle of Britain," were sorted into these four response categories. Changes from before to after for a selection of eleven opinion items were determined for each of these groups. These items were selected on the basis of being judged by the analysts to be definite expressions of pro-British or anti-British attitudes. The effect of the film was measured simply in terms of after-minus-before differences for each subgroup because of the aforementioned lack of control subgroups. On the basis of preliminary examination of the data, the "very much" and "fairly well" groups were combined as being essentially alike in the effect of the film. The "not very much" and "not at all" groups were also combined because of the very small numbers of cases (26 men in all). The two combined groups thus formed are referred to below as "like" and "dislike" groups. The data for effect of the film in terms of after-minus-before differences for the film subgroups are shown in the tabulation below:

TABLE 1
EFFECT OF FILM ON GROUPS WHO LIKED AND DID NOT LIKE THE FILM

| Content of opinion item | PER CENT DIFFERENCE, AFTER-MINUS-BEFORE IN FILM GROUP | |
|---|---|-----------------------------------|
| | "Like" Subgroup (N = 288) | "Dislike" Subgroup (N = 26) |
| 1. Best fighting job was done by RAF | 15 | 7 |
| 2. British did well at Singapore | 0 | -20 |
| 3. British not taking it easy | 4 | -4 |
| 4. British had done much more fighting than we | -3 | -4 |
| 5. British kept us from bombing | 11 | -4 |
| 6. British saved U.S. from fighting on home soil | 6 | -15 |
| 7. British doing all they can | 9 | -4 |
| 8. British will make just peace | 7 | 4 |
| 9. British fighting for freedom for all | 7 | -4 |
| 10. Britain deserves more credit for holding off the Axis | 9 | 4 |
| 11. RAF gave Nazis their first defeat | 23 | 23 |
| Mean difference* | 8.0% | -1.5% |
| Mean index of effect* | 17% | P Diff < .02 -3% |

* Average difference expressed as a proportion of the maximum change that could have occurred in the direction indicated by the difference

Giving each person a difference score in number of pro-British responses before and after the film, the mean difference for the "dislike" group ($-.16$) is reliably smaller (beyond the 1 per cent confidence level) than the mean difference for the "like" group ($.88$). Also, the result was consistently obtained from item to item, the "dislike" group showing less positive effect for 10 of the 11 items. Thus the expected relation between approval and effect was obtained. It should be remembered, however, that the analysis is subject to the methodological difficulties previously mentioned—a genuine control is not possible.

The significance of the findings hinges in part on the extent to which approval or disapproval depends on agreement with, or disagreement with, the interpretations presented in the film versus the extent to which approval can be obtained without altering the basic interpretations. Thus, can pro-British arguments be presented to anti-British individuals without arousing disapproval for the presentation? If this is possible, then it may be possible to improve the effects of a presentation by procedures that increase the amount of approval it obtains. From the present finding we can only say that effects and approval were positively correlated, which may only mean that those strongly opposed to the interpretations were not influenced to change their opinions because of their opposition and did not like the film for the same reason. The present analysis does not untangle the causal relations between the material presented, the approval or disapproval obtained, and the opinion changes produced. The kind of experimental analysis required will be discussed after the presentation of the relation between opinion changes and evaluations by the audience as to the authenticity or the "propagandistic" nature of the film presentation.

3. EFFECTS AS A FUNCTION OF SKEPTICISM OF THE FILM

The extent to which interpretations such as would be represented by changes in men's opinions are influenced by a film obviously depends not only on *learning* of the material—but also on the *acceptance* of the material presented. Men might have learned what the film *said*, but if the film presentation were viewed with skepticism or suspicion they might not accept the interpretation as the correct one.

In orientation material of the type studied in the "Why We Fight" films, suspicion of the material would be related to men's

ideas of *propaganda*. As indicated earlier, this term might mean to them either falsity of the material presented, or the intent to manipulate or influence their beliefs in a particular direction, or both. Disapproval and suspicion related to a conception of the film as propaganda in the manipulative sense might detract from the acceptance of interpretative material based on facts presented, even though the facts themselves were not questioned.

Two questions were included to tap "propaganda" reactions: a check-list question to get at the falsification aspect, and an open-ended question to get at the manipulative aspect of men's possible reactions to the film as propaganda.

a. *Relation of effects to evaluations concerning falsification.* The question aimed at the falsification aspect came at the end of the questionnaire and was worded as follows.

If you saw one of these movies, did you think it gave a fair and accurate picture of events?

- _____ Yes, it gave a true picture of what was happening
- _____ It was true in most respects but seemed to give a one-sided point of view at times
- _____ No, it did not give a really true and honest picture of the facts

This question was used in only half of the questionnaires as a precautionary measure in case it caused some of the men to divine the real purpose of the questionnaires and go back over their questionnaire and change their answers. It was omitted in half the cases to keep at least half the sample free of this possibility. Thus only a relatively small number of cases was available for analysis. Moreover, the distribution of answers was very unfavorable for analysis. The majority picked the first category, only 50 men (27 per cent) picked the second category and only half a dozen picked the third category. Thus the number of cases for this last group was too small to warrant analysis. The mean effect on the 50 men who said the picture's presentation was "true in most respects" did not differ significantly from the effect on the larger number who indicated that the facts presented were entirely true.

It may be that the choice of categories in the question used was unfortunate, preventing the separation of a large enough number of the more extremely suspicious men to detect a correlation between

evaluations of the film's authenticity and changes in opinion. Or it may be that this aspect of the men's evaluations was unrelated to effects. At least no evidence for a relation was obtained even though the men were divided by the question into about the upper three fourths and the lowest one fourth in their confidence in the truth and fairness of the film's presentation.

b. *Relation of effects to evaluations concerning manipulative purpose.* The question asked to get at men's conception of the film as propagandistic in the sense of their conceiving its purpose to be a manipulative one was simply the open-ended question described earlier: "What did you think was the reason for showing this movie to you and the other men?" It was anticipated that an appreciable number of men would characterize the purpose of the film as "propaganda." As it turned out, however, only a very small percentage (around 4 per cent) of the men used the term "propaganda" in their comment. However, a considerably larger proportion gave answers that were classifiable as indicating a *manipulative intent* as the purpose of the film. These men were classified as regarding the film's purpose as "propagandistic," and the film's effects on this group were compared with effects on two other groups: those whose answers either indicated a purely informational or educational function, and those who gave ambiguous answers not so clearly falling in the "propaganda" or "informational" categories.³

For convenience, the three major subgroups will be referred to as the "manipulative," "ambiguous," and "informational" subgroups, in terms of the classification assigned to the answers they gave concerning the purpose of the film. The numbers of cases falling in the three major categories above were 103, 147, and 121, respectively.

Effects for these subgroups ascribing different purposes to the film were determined for five opinion items appearing in the before and after questionnaires which showed significant over-all effects of the film. The results are shown below.

Comparison of the effects shown in the next table indicates *less effect* for those who imputed a "propagandistic" or "manipulative" purpose to the film than for those who characterized the reason for showing the film in terms of an "informational" purpose or gave

³ Illustrative answers classed as *manipulative*: "make us work harder," "build up morale," "make us hate the enemy." Illustrative *informational or educational* answers: "give us information about the cause of the war," "show what was happening," "show us what to expect in the war." Answers classed as *ambiguous*: "show us the nature of the enemy," "show us why we fight."

TABLE 2

MEANS OF RESPONSES TO FIVE OPINION ITEMS FOR SUBGROUPS DIFFERENTIATED BY ANSWERS ON QUESTION CONCERNING "PURPOSE" OF FILM

| | "Manipulative" Subgroup N = 103 | "Ambiguous" Subgroup N = 147 | "Informational" Subgroup N = 121 |
|--------------------------|---------------------------------------|------------------------------------|--|
| Final level (% after) | 56.0% | 63.5% | 62.5% |
| Initial level (% before) | 42.0 | 45.7 | 42.5 |
| (% After minus % before) | 14.0 | 17.8 | 20.0 |
| Effectiveness index | 24% | 33% | 35% |

answers classified as "ambiguous"; the measured effects for the last two groups did not differ greatly. The pattern of effects seen for the overall results is also obtained when the data are tabulated separately for men of high and low educational levels. However, the difference in "effects" between those ascribing a propaganda purpose and those ascribing other purposes to the film was especially marked for the men with less than a complete high school education. The data for separate education groups are shown below.

TABLE 3

MEAN EFFECTS ON FIVE OPINION ITEMS BROKEN DOWN BY EDUCATIONAL STATUS

| | "Manipulative" Subgroup | "Ambiguous" Subgroup | "Informational" Subgroup |
|---|----------------------------|-------------------------|-----------------------------|
| <i>Low education men (grade school, some high school)</i> | | | |
| Final level (% after) | 50.1% | 65.8% | 64.0% |
| Initial level (% before) | 45.3 | 53.1 | 49.0 |
| (% After minus % before) | 4.8 | 12.7 | 15.0 |
| Effectiveness index | 11% | 24% | 29% |
| <i>High education men (high school graduate, college)</i> | | | |
| Final level (% after) | 63.8% | 75.0% | 73.6% |
| Initial level (% before) | 48.9 | 55.2 | 52.9 |
| (% After minus % before) | 14.9 | 19.8 | 20.7 |
| Effectiveness index | 34% | 32% | 44% |

The foregoing results appear to indicate that men who like films learn more from them than those who do not and that men who are skeptical of the film are less influenced than others. The results

do not, however, show that the specific material which is best liked or most accepted is that which is best learned. Such a result could not be analyzed, partly because acceptability is related to demographic variables and partly because the acceptance was not analyzed separately for the specific contents in this study of a single film.

In absence of alternative presentations which can be compared, the process of sorting men on the basis of answers to the questions as to whether they liked or disliked the film cannot be said to furnish an answer to the question, "Is material that is liked learned better than material that is not liked?" Rather, it furnishes only an answer to the question, "Did those men who liked the material learn it better?"

The best analysis to answer the question of whether greater effectiveness will result from making film material in such a way that it will be "liked" or regarded as "authentic" would appear to demand the preparation of alternative versions of film material in which the effectiveness of alternative presentations of the same material, found to differ in terms of these audience evaluation factors, is studied. However, manipulation of the extent to which men express interest or approval in the material necessarily involves making specific changes in the presentation—one cannot manipulate interest or approval directly and as such. Hence there is still a logical difficulty involved in making a clear-cut analysis of the "effect of interest" on material learned. If the problem of the relationship between audience evaluation and effect is conceived to refer to evaluation differences which are created by the manner of presentation of the specific material which it is desired to test, this logical difficulty is apparently insurmountable whatever device or devices are introduced to manipulate degree of interest may also affect directly the effectiveness of the presentation in ways other than through the mediation of increased interest in the material.

It would appear that a rigorous answer to the question of the relation between interest and effectiveness can be obtained only when the question is asked with respect to differences in effectiveness resulting from interest-arousing contextual material that is not in itself a part of the presentation of the material to be tested. Thus, one might measure the effect of a humorous introduction to a film in arousing interest and thus facilitating the learning of factual material subsequently presented. But there would be difficulty in

obtaining a rigorous measure of the influence of interest aroused by presenting a fact dramatically, since dramatic presentation of the fact would involve other changes potentially producing differential effectiveness as well as the concomitant change in interest value.

AUDIENCE EVALUATION STUDIES OF FILMS WITH A GENERAL INTEREST PURPOSE

A number of film studies were undertaken by the Experimental Section in which no experimental evaluations were made, the only measurements being the quantification of the opinions of sample audiences about the film. Some of these studies had very specialized purposes—for example, one was carried out to determine if a film explaining the Army educational program was “too Hollywood”—and are of little interest here. One series of such studies, however, is of particular interest from the standpoint of audience evaluations because the purpose of the film was stated as being simply to satisfy interests of the soldiers, and therefore for the present purposes audience evaluations were the only criteria used in determining the success of the films. With this purpose there was no problem of relating audience evaluations to effects—the audience’s “reaction” itself revealed how successfully the films achieved their objectives.

The studies referred to dealt with a series of films called “The War.” This was a short feature issued twice a month designed to be shown along with entertainment movies in camp theaters. Attendance at these films was voluntary, and the men were free to leave the theater at any point. Each issue was made up of five episodes. Usually four of the episodes were much like newsreel feature stories, each one being accompanied by a running narration and dealing with wartime topics of presumed general interest such as the training of a particular military branch, a well-known naval or military battle, a famous personality in the war, and so forth. Some of these episodes were of a similar kind from issue to issue and had the same title in each successive issue. For example, “Back Home” and “I Was There” were repeated titles, dealing respectively with the contribution of civilians and with individuals who had personally participated in some important action in the war. The fifth episode was generally of a humorous nature, most of these being animated cartoon comedies of the “Silly Symphony” variety, involving a character named “Snafu.” These “Snafu”

cartoons related the exploits of the Army's worst soldier, and each contained an implied moral in that the undesirable outcome of Snafu's behavior was portrayed.

PROCEDURES USED

For obtaining men's reactions in terms of immediate interest, it was found useful to supplement the techniques of interviews and questionnaires by use of a polygraphic recording of audience judgments of like and dislike.⁴ The technique, long used in radio program testing, involves providing members of the audience, during the showing, with a pair of push-buttons, and having them indicate parts of the film they "like" by pressing one push-button and parts they "dislike" by pushing the other as they view the film.⁵ The responses of the audience are electrically recorded and can be cumulated and analyzed. Since the continuous record can be related to specific portions of the film, this technique is also used, as described below, in conjunction with subsequent interviews.

The main function of the procedure is to get an appraisal of reaction to specific film content. Hence it is mainly useful when interest or enjoyment is the sole or principal criterion of a film's success. A unique advantage of the method is that it affords a continuous indication of *immediate* response to the film, rather than a retrospective reaction such as is obtained through the use of questionnaires or interviews conducted after the film showing.

1. METHODS AND PROBLEMS IN POLYGRAPH RECORDING OF "LIKE" AND "DISLIKE" RESPONSES

a. *General arrangements and apparatus.* Because it is believed by some motion picture producers and critics that the reaction of an audience depends to a considerable extent on its size and that reactions from small groups might differ materially from those where a large audience is present, it was felt advisable to have a fairly large group present while the reactions were being recorded. The equipment used was sufficient to record responses for 20 men at one time. These men were seated at the back of the theater. The remainder of the audience viewed the showing without push-buttons, but filled out a questionnaire about the film afterward.

⁴ The equipment used was the Esterline-Angus, model A W portable operation recorder, with 20 ink-writing polygraph units.

⁵ Cf. Hallonquist, T., and E. A. Suchman. "Listening to the Listener," pp. 265-334 in *Radio Research, 1943-1945* (Lazarsfeld, P. F., and F. N. Stanton, editors), New York: Duell, Sloan, and Pearce, 1944.

Each pair of push-buttons had a number corresponding to the number of its recording pen. The numbers were later used as a basis for referring to the various members of the audience in the group interviews, the "likes" and "dislikes" of individual men could be used as a basis for focusing questions on specific reasons for an individual's liking or disliking various portions of the film.

b *Synchronization of records.* One of the procedural problems in this use of the "program-analyzer" was that of synchronizing each program-analyzer record with the script of the film. This required using a motion picture projector which ran at a constant speed.

In order to correlate program-analyzer reactions with film contents a timed "script" was prepared for each film. Ordinarily, film scripts do not include the detailed scene sequences, and last-minute improvisations are often introduced in production and cutting, so that for using the program-analyzer a final script must be made from the completed product. For this purpose the films were viewed and a detailed list of all sequences and sound effects, together with a word-for-word transcription of the narration, was prepared. This list was then timed and used as a reference in analysis of responses and in questioning the men about their reasons for pressing one or the other button at a particular time.

A specimen excerpt from such a timed list is shown below. (The sequences outlined are those from a film subject entitled "Finishing School," which showed the training of Ranger amphibious troops in invasion tactics.)

| <i>Excerpts from timed script</i> | <i>Time</i> |
|--|-------------|
| Starting cue first two notes of "Artillery Song" | 0'-00" |
| End of Marine Hymn | 0'-20" |
| Title "Finishing School" | 0'-25" |
| Men climbing on net | 0'-30" |
| Men jumping from platform | 0'-37" |
| Commentator "They're toughening up for a little job ahead" | 0'-47" |

c. *Standardization of responses and instructions.* It is to be noted that the program-analyzer technique as described here affords no gradation of "likes" or "dislikes" of individual members of the audience, since the "like," "dislike," and "neutral" are recorded in all-or-none fashion for any one subject. It was found that there was considerable variability from subject to subject in the way in which the like and dislike buttons were employed, and that the instructions

given in advance of the showing were an important feature in attempting to standardize this pattern of response. The pattern sought was for the subjects to push the right-hand button when they liked what was being shown, to hold it down as long as they liked it, and release it when they did not especially like the material, similarly, they were to press the dislike button when they disliked what was being shown and to continue to hold it down as long as they disliked the material. They were instructed to depress neither button when they had no particular feeling of liking or disliking the material, but felt neutral or indifferent towards it

Variation in instructions was found to have marked effects both on the general level of response (frequency of pressing either like or dislike button versus neither) and on the type of evaluation made the basis for the "like" or "dislike" response. In the first film studied, in which there were a number of scenes of Japanese soldiers and other shots of the enemy, it was found that the men showed a strong tendency to press the "dislike" button (as it turned out later in interviewing these men) as an expression of disapproval of the enemy and not because they necessarily disliked *seeing the pictures* about the enemy. This necessitated emphasizing in the instructions the meaning of "like" and "dislike," and examples were given of what was *not* meant by disliking. Even with these precautions, there were occasional instances where men were found to have pressed the "dislike" button because of disapproval of the referent even though they were greatly interested in observing the film

Another difficulty that was never completely solved was the tendency for the subjects to become so engrossed in the film when it was particularly interesting that they forgot about their push buttons. Still another problem was the tendency always to push one or the other of the two push buttons, the "neutral" category in such cases losing its meaning. No completely satisfactory instructions were worked out in the course of the studies, although it was felt that these tendencies were reduced by including in the instructions humorous examples of what not to do, thereby motivating the subjects to be superior to some of the "horrible examples" the film-testers had found in previous experience

d *Use of program-analyzer records as a basis for group interviews.* As mentioned previously, the program-analyzer records were sometimes used immediately after the showing as a basis for inquiring as to the reason for likes and dislikes of individual men. In doing this

it was found convenient to transfer, during the showing, parts of the individual like and dislike records to a sheet which contained an outline of the timed script, together with columns for recording the responses of each individual. The overall procedure in studying the film was usually to show the film, obtaining the program-analyzer record, and to follow this immediately by a short period in which the men who had used the push buttons filled out questionnaires concerning the film. The interval while the men were filling out the questionnaires afforded time to complete the transferring of the records of individual responses from the polygraph paper to an outline such as that mentioned above. This provided the interviewer with a convenient record for use in asking questions during the group interviews which followed the filling out of the questionnaires.

2. USE OF QUESTIONNAIRES

The questionnaire filled out by men who were tested with the program-analyzer was also filled out by the rest of the audience. The purpose of this questionnaire was three-fold: (1) to get the reactions of the men who had used the program-analyzer before they heard the comments of others in the group interview, (2) to get reactions in retrospect at the end of the film as contrasted with the immediate reactions shown by the program-analyzer, and (3) to get a larger number of cases for quantitative report than was practicable with the push-button equipped groups of only 20 men per showing that was the maximum possible with the available equipment.

The questionnaire was presented as having the purpose of improving the film shown and future films by finding out for the filmmakers what the soldiers themselves thought of the films. The film testers emphasized that they did not make the films and their feelings would not be hurt if the men were critical. All questionnaires were anonymous, but the men who had used the push buttons were asked to write their push-button number on their questionnaire.

The questionnaire started with an overall question about whether or not the men liked the movie and then went on to more detailed questions asking them to rank the successive episodes from most interesting to least interesting, and to tell what impressed them most, what they disliked if anything, what they thought should be taken out, how they thought the film could be improved, and so forth.

3. CONDUCT OF THE GROUP INTERVIEWS

All of the audience members filled out the questionnaire after a film showing, but only the 20 men who had used push-buttons were interviewed. All 20 were interviewed as a group, with as informal a setting as it was possible to achieve. The usual practice was to begin with nondirective questions such as "What did you think of this movie?" Unsolicited comments generally determined the direction of the questioning at the outset. Where relevant, the polygraph record was referred to and either the group was questioned about sequences that were liked or disliked by the majority, or individuals were questioned about their own responses. In addition, certain planned topics for interviewing were prepared, and if these were not spontaneously mentioned by the men, questions about them were specifically raised by the interviewer.

During the course of the studies it was found convenient to prepare still pictures of distinctive portions of the films. These could be used to make sure the interviewer knew what portion of the film a man was commenting on and similarly to identify for the men the portion the interviewer had in mind when he raised questions about specific contents. It was felt these "stills" also helped to reinstate the film content where the men's memories would otherwise be vague.

All questions asked by the interviewer and the answers and comments by the men were recorded stenographically.

REPRESENTATIVE RESULTS

Some detailed results of one of the studies of these films will be presented, followed by a summary of the inductive generalizations about the men's reactions that appear to have possible significance for the series as a whole. Actually not a large enough number of studies were carried out for these generalizations to have a great deal of validity as inductive generalizations.⁶ The "conclusions" that were stressed in the reports to the film-makers were ones that had considerable plausibility in addition to having been revealed as potential generalizations by the audience's evaluations. In other words, the reasonableness of a finding carried considerable weight in determining whether it was incorporated as a guiding principle in future productions. However, the procedure, if carried out over a

⁶ Four studies were carried out, one on each of the odd-numbered issues of the first eight films produced in the series.

large enough number of films, appears to be a highly efficient one for arriving at useful generalizations and is well adapted to product improvement of a series of fairly homogeneous films. Each production principle tentatively adopted and used in succeeding films is automatically checked and modified or discarded depending on its actual degree of generality.

1. RESULTS OF THE STUDY OF ISSUE 5 OF "THE WAR"

Issue 5 serves as a fairly typical example of the series tested. The contents were the following:

Episode a "*Finishing School*" This showed training of amphibious (Ranger) troops in invasion tactics such as embarking and disembarking and advancing under live ammunition

Episode b "*Back Home*" This showed machine tools being produced by a small family shop in Connecticut which was awarded the Navy "E" for its contribution to war production.

Episode c "*I Was There*" This featured an Army Nurse's eye-witness account of the bombing of Manila and the fall of Corregidor, with action shots to illustrate part of her commentary. The whole story was told in the nurse's voice and was introduced and concluded by shots of the nurse telling her story

Episode d "*First Birthday*" This documentary reviewed the founding and first year's activities of the Women's Army Corps and depicted the training and duties of Wacs.

Episode e. "*Snafu*" This was an animated cartoon showing the adventures of a comic character called "Private Snafu," whose complaints about Army routine and duties led to his magically being put in charge of the camp, with disastrous consequences.

Figure 1 on page 110 shows the overall questionnaire ratings given by the men in ranking the five episodes as units. Figure 2 on page 111 shows the moment-by-moment record of instantaneous "like" and "dislike" reactions as cumulated from the polygraphic records. In cumulating the data, a "like" reaction was scored if a given individual "like" button was depressed at any time during the recording interval (6 seconds), regardless of whether the pressure was continuous or intermittent.

Some of the results that can be seen in these two charts represent findings that were verified with other issues and therefore have at least some status as inductive generalizations. These are described below

If Figures 1 and 2 are compared, one of the most notable observa-

tions is the discrepancy between the program-analyzer record of the interest shown in the "Snafu" cartoon and the interest in retrospect as revealed by the questionnaire. The cartoon was highest in interest in terms of the immediate reactions but ranked only third in terms of the questionnaire responses of the same men. An equivalent result was obtained in the one other film tested which had a "Snafu" cartoon. This was not due to any obvious difference in the frame of reference for the questionnaire ratings as compared with the like-dislike responses recorded during the showing, although the wording of instructions was necessarily not the same in the two cases and may actually have stressed different kinds of judgments. The questionnaire item explaining how the rating was to be done was phrased entirely in terms of which episode they thought was "most interesting," "next most interesting," and so forth, whereas the instructions for using the push-buttons, while partly phrased in terms of interest, tended more to use "like" and "dislike" as the key expressions. Perhaps the word "interesting" connotes some measure of utility of the material whereas the "like-dislike" emphasis in the case of the push-buttons suggested enjoyment without regard to utility. Some suggestive comments written in by the men

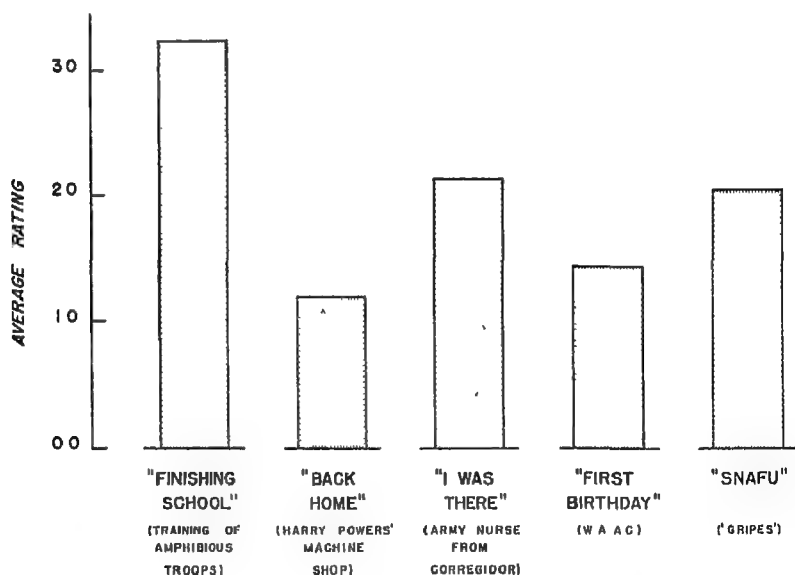


Figure 1. Questionnaire ratings of the five episodes in Issue 5 of "The War." The men were asked to rank the five episodes in the film as "best," "2d best," etc. Ratings for each episode were then scored as follows: "best," 4 points; "2d best," 3 points; "3d best," 2 points; "4th best," 1 point; "worst," 0 points. The values plotted are the average scores for the men whose polygraph records are averaged in Figure 2.

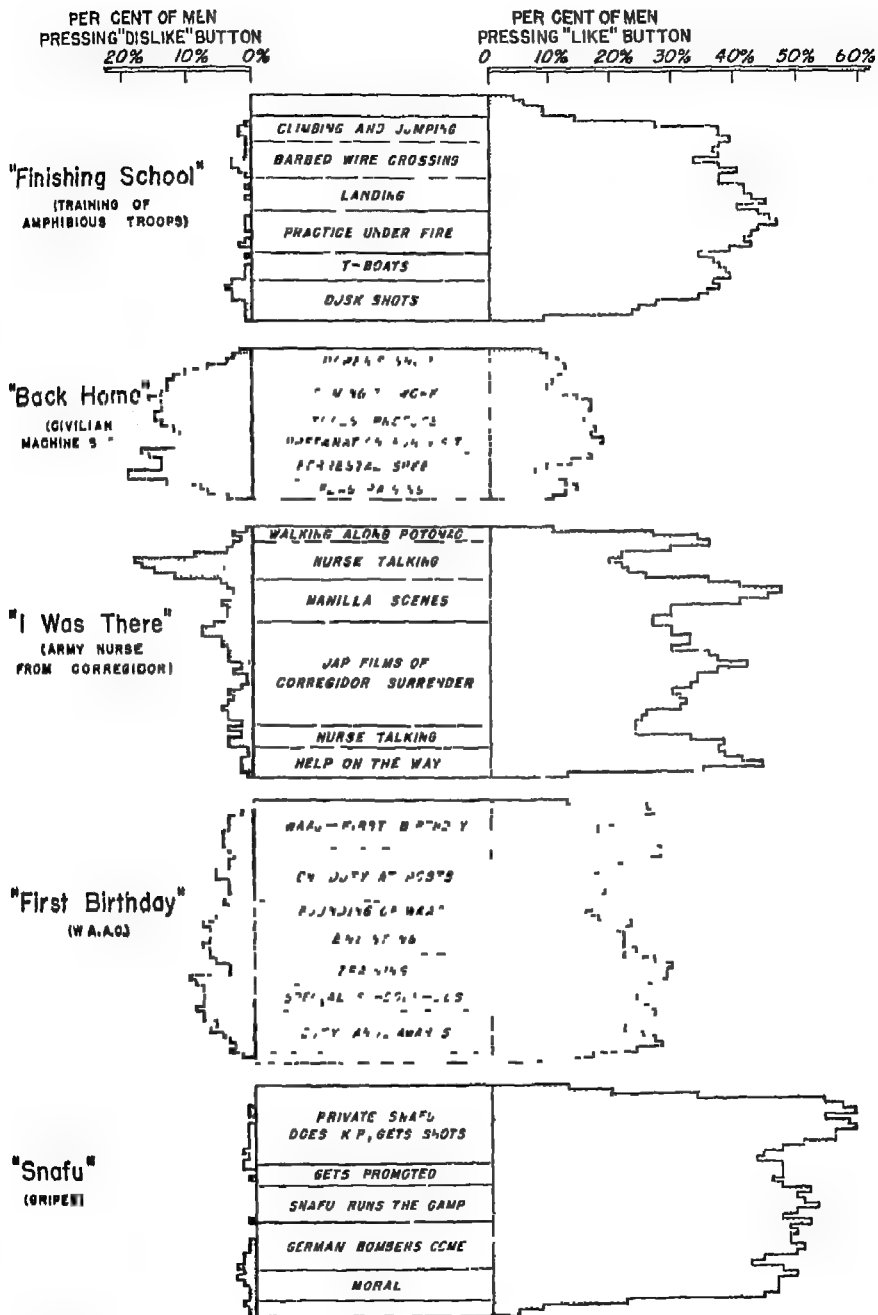


Figure 2 Continuous polygraph records of the group "likes" and "dislikes" during showing of issue 5 of "The War."

indicate a different frame of reference in the retrospective evaluations given on the questionnaire items.

The comedy should be cut out because we should have our minds on the job we have to do

Snafu does not go with the rest of the picture.

Parts of Snafu too much on the comedy side Not realistic enough

These and other comments suggest the possibility that, in retrospect on the film as a whole, a serious instructional value to most of the material was sensed, and to some men Snafu seemed out of place by comparison even though it had been enjoyed while it was being viewed. That this reaction was not unanimous, however, is illustrated by the following comments from the interviews

A cartoon to amuse one with a very necessary Army moral to it

A thing like that is comedy and is a very good lesson and keeps a fellow interested, too You learn something and it's a little different than what he usually sees in training films, and it is also a very good lesson

Further examination of Figure 2 reveals another finding that was typical of results obtained in the other studies—disapproval of close-ups of a person speaking. It can be seen in the figure that the lowest "like" point in the program-analyzer record and the highest "dislike" point came during a sequence of a speech by the Secretary of the Navy, and the low points in the "I Was There" episode came during shots in which the nurse who narrated the episode was merely speaking in front of the camera. During other portions of the episode she was not shown speaking, but instead her voice narrated scenes from Manila, Bataan, and Corregidor. This low level of "like" responses during close-ups of a person speaking—even when the verbal content was much the same as during narration of action—was found in the other films and was revealed in comments by the men in the questionnaires and the interviews as well as in the program-analyzer record.

[There should be] a little bit less of close-up of their talking and more action pictures

. . . these two Army nurses were sitting there and then conversation had no point to it. Mentally I was fidgeting around waiting to see some action

I think we had a majority of speeches since we are in the Army. We don't like to hear speeches [In reference to the shots of Forrestal's talk]

By contrast with the reaction to the close-ups of the nurse telling her story, the portions of "I Was There" where the narration was illustrated with action shots reached relatively high points on the program-analyzer record, and the episode as a whole was ranked second in retrospect on the questionnaires.

The other outstanding results shown in Figure 2 are the popularity of the first episode, especially in retrospect, and the unpopularity of the second episode, which ranked worst both in immediate judgments on the program-analyzer and in retrospect on the questionnaires.

The first episode, while it dealt with training, was concerned with simulated combat, including live ammunition. In all instances the men liked action shots from real combat, especially with reference to the instructive value of seeing the "real thing." The realistic training sequence apparently capitalized on this reaction

It's exciting It gave me a sense of what was coming

We may be doing that ourselves Know what it is all about, get a view of it now, and when the time comes, we will know what to do

The negative reaction to the "Back Home" episode was not one for which opportunity was provided for replication in other films. The consensus of the men's comments seemed to be that there was too much emphasis on what they thought to be pseudo-patriotism in a group - the civilians - which was not exposed to the hardships of Army life and at the same time was being well paid for its "patriotic" efforts. While no opportunity to check the generality of this interpretation was possible, it appeared to have considerable probability from other sources of information about soldiers' opinions. Illustrative comments on the episode were.

That rubs a soldier the wrong way. They don't like to see civilians getting credit I feel a little prejudiced, as every soldier does

Everybody has a brother that is working in a plant that has an Army "E" flag. It is just done for publicity purposes, and it's purely propaganda.

I think that is Army "hookum" We are at war, and everybody should do his duty, whether in the Army or not They are getting \$90 and \$100 (per week) for the work they are doing They are getting well paid for it.

2. ATTEMPTED GENERALIZATIONS FROM PARALLEL STUDIES OF SEVERAL ISSUES

The fact that each issue of "The War" was constructed according to a fairly consistent pattern afforded a basis for comparing different presentations of similar types of material, thus providing an opportunity to check on the generality of the conclusions from single studies. As already mentioned, four issues were studied, including the one just described. In each issue, one of the five episodes was always an eye-witness report of actual action with a commentator who had "been there", another was an additional account of military action, another was concerned with the construction, testing, or repair of equipment; and another was a humorous episode, involving either a comic dialogue or an animated cartoon. This similarity in the pattern of episodes was not specific to the four issues studied but was the projected plan of all future issues. Further, the recurrence of various types of action, commentary, visual material, and subject matter *within* various episodes provided somewhat more than the four replications of content obtained from testing four parallel issues.

The following aspects of men's reactions were found to obtain in every episode or issue which was available for analysis. The first two points noted below are illustrated by the program-analyzer records in Figure 3.

"On-the-spot" narrator. Audiences of the type studied—enlisted men in training—showed considerable interest in accounts of action as narrated by a commentator who had actually "been there." However, there appeared to be considerable differences, in terms both of the program-analyzer data and of men's retrospective judgments, in the interest shown in eye-witness accounts, depending on whether the narration was accompanied by action scenes or whether it was simply a close-up of the eye-witness telling his story.

Scenes of action vs. scenes of talking. Where the pictures on the screen showed only the narrator speaking, interest tended to be relatively low; when real shots of action were used to illustrate what the commentary was describing, interest tended to be high. This was suggested in the study of the first issues by comparison of reactions to episodes in which the only pictures were those of the commentator, as against episodes in which a considerable number of action shots were used to illustrate the story. The preference for action shots was even more clearly seen in subsequent issues where com-

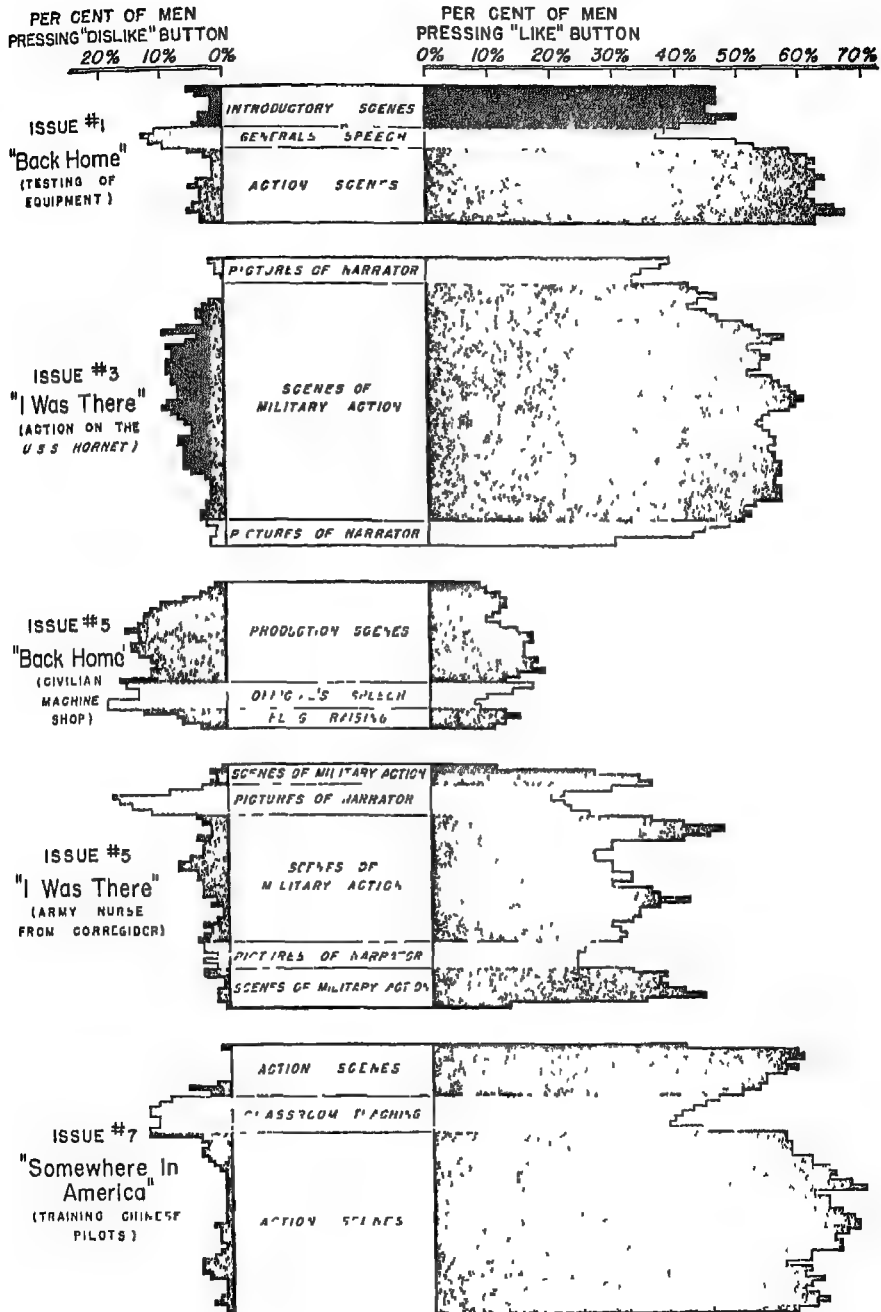


Figure 3. Polygraph records of group "likes" and "dislikes" for five episodes in which comparisons of action and talking scenes could be made within the same episode.

parisons could be made *within* episodes which included both shots of the narrator speaking and illustrative action shots described by the narrator. A related and also recurrent characteristic of men's likes and dislikes found in the studies was the unpopularity of official speakers and of speechmaking generally on the screen. This also was reflected both in the program-analyzer records and in the comments and ratings men gave in their interviews and questionnaire answers. Figure 3 shows the program-analyzer records for five episodes in which internal comparisons of action and talking scenes can be made

The results with respect to speeches and close-ups of the narrator talking may well have applicability for teaching films in general. A not infrequent practice of Army training films was to devote portions of the film to showing an instructor in close-up while he proceeded to explain the points in lecture fashion. This might be an effective method if the speaker is a very well-known and prestigious or relevant personage who could not be presented in person and would be generally available only through the medium of motion picture. But if the speaker is simply an unknown instructor or an actor playing the role of instructor, this device of showing him lecturing in close-up—while it is a very simple and inexpensive expedient in production—probably does not at all capitalize on any of the special characteristics of film presentation.

Other points: Several other characteristics of men's likes and dislikes appeared to be fairly general, at least to the extent that they recurred in different film episodes. One of these was narration by the commentator purporting to parallel what was shown in the film without actually doing so, or otherwise not appearing in keeping with the film. For example, in a picture showing activities of Japanese soldiers, the commentator's remarks noted the "cruelty" of the Japs, while actually the action of the Japanese soldiers as shown did not appear to the men to be more cruel than the behavior of American soldiers under comparable circumstances. Also tending to evoke unfavorable criticism from soldier audiences, both in the studies of "The War" and in evaluations of the "Why We Fight" series of orientation films, were scenes which the men regarded as "old stuff." Thus, newsreel shots which they had seen previously, even if relevant to the material currently being shown, were criticized by some men as being a repetition of what they had seen before. (At the same time, other men felt newsreels helped to give the film an air of authenticity.) Any scenes depicting Army life

which the soldiers felt were unrealistic in terms of their own experience were quite consistently disliked by soldier audiences

The most consistently *liked* type of material was that involving action shots either of training or military operations, especially action which appeared to be highly realistic. This popularity seemed to stem from a motivation on the part of the men to find out what to expect their own future experiences to be like.

3. COMPARISON OF AUDIENCE-EVALUATION RESULTS OBTAINED BY PROGRAM-ANALYZER AND QUESTIONNAIRE

It is of methodological interest to compare the results of evaluations as given by the men's immediate reactions on the polygraph record with their retrospective judgment in terms of questionnaire answers or interview comments. This was done for evaluation of complete episodes, which were rated as units in retrospect in addition to the continuous judgments recorded throughout on the program-analyzer. Differences in the relative evaluation accorded different episodes by the two methods does not, of course, necessarily mean inconsistency in men's judgments, since the two techniques may measure somewhat different things. In addition to the fact that in one case evaluation is immediate and in the other case retrospective, it is possible that there was a difference in the type of evaluation which men were making. As noted earlier, in giving their reactions with the program-analyzer, emphasis was placed on judgments of "like" or "dislike," whereas in the questionnaire evaluations, the wording of the ranking question was in terms of how "interesting" each episode was. It appeared from men's comments that they often considered such factors as how appropriate or valuable they thought the material was for soldier audiences in general (in spite of the attempt, in giving the instructions, to avoid this type of evaluation). This may account for the fact that in the two film issues containing animated cartoons, the cartoon episodes were rated appreciably lower in terms of questionnaire ratings than in terms of reactions shown by the program-analyzer. The correlation between average program-analyzer rating and questionnaire ratings for the five episodes of each of the four films studied is shown diagrammatically in Figure 4.

EXPLANATION OF FIGURE 4

The percentages plotted for the program-analyzer evaluations are the average net percentages of favorable reactions for each episode,

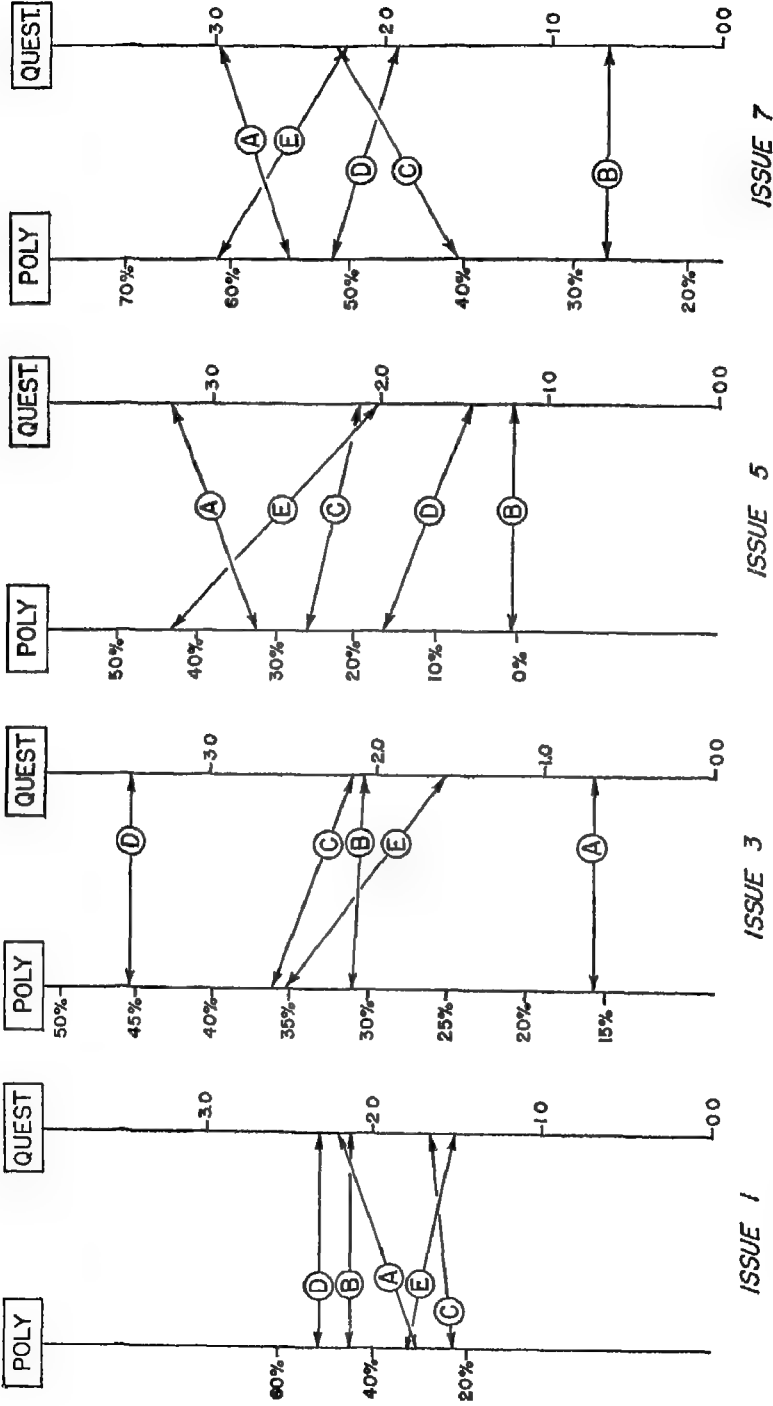


Figure 4 Comparison of "Program-Analyzer" Data and Questionnaire Ratings of various episodes (A-E) in Issues 1, 3, 5, 7 of "The War."

obtained by subtracting "dislike" from "like" averaged over the total time interval for the episode. The questionnaire ratings were those obtained in answer to the question asking the men to rank the five episodes of each issue from best to worst. Ratings for each episode were then scored with four points for first place, three points for second place, two for third, one for fourth, and none for worst. The values plotted are the average scores for the total audience of each film. Exactly comparable results for program-analyzer and questionnaire evaluation would give lines that connected the corresponding measures for the various episodes without crossing.

*EXPERIMENTAL COMPARISON OF
ALTERNATIVE PRESENTATIONS*

.....

I N THE experience of the Experimental Section, one of the most frequent and insistent requests was for research to answer questions as to the relative advantage of one class of products as compared with another. "Which is more effective in presenting orientation materials on the radio, a 'documentary' (dramatic) or a commentator?" "How does a film-strip compare with a sound-scored motion picture?" "Isn't a film always superior to a lecture?" These were the kinds of questions on which film and radio producers wanted research information.

Such questions could have immediate practical significance, as when the best of two or more existing products must be chosen because only one can be used. Here only an empirical answer is needed, there is no problem of generality other than the adequacy of the sample of men studied and the representativeness of the conditions in presenting the products experimentally. Such research can serve a very useful function of guiding an organization as to the best of available means for carrying out its program.

However, the questions were rarely asked in the form of an empirical comparison of alternative *existing* products, one of which was to be selected. Rather, as can be seen in the examples above, they were phrased in general terms applying to a whole class of products. When thus stated, the questions inherently involve many serious problems concerning the generalizability of specific comparisons of two existing products (no matter how well the comparisons may be conducted in respect to sampling and experimental control). For example, the question, "Which is the better teaching medium, a film or a lecture?" immediately raises further questions such as. "What film?" "Who will be giving the lectures—an expert speaker or a novice?" "For what kind of audiences?" "For what kinds of subject matter?" Many other relevant questions could

also be raised, and the research problem—to be properly answered—would have to be expanded into an experimental analysis of many interacting factors involved in lecture presentations and in film presentations. It is unlikely that a definitive answer could be given to the original question in its unqualified form.

Nevertheless, several studies aimed at questions taking this relatively unqualified form were carried out, partly because of the insistence of the requests and partly to get leads that would provide a beginning for an analysis of the factors underlying the effectiveness of various media. Of the studies that were carried out, three seem to have general interest from the standpoint of providing such leads. The first to be reported is a comparison of a motion picture versus a film-strip presentation of the same subject, the second is a comparison of a "commentator" radio program versus a "documentary" or dramatic radio program as a means of changing opinions on an orientation subject; and the third is a comparison of introductory discussion versus review as a means of increasing what is learned from a film.

The scientific status of these studies should be clearly delineated. They are carefully controlled experimental studies of two particular alternative products, but as far as generality is concerned, the results are generally restricted to providing a basis for *hypotheses* about the factors that distinguish the two. Many instances can be found in the literature of teaching-film research in which two different presentations are compared and where, from the results of this comparison, sweeping generalizations are made about the two classes of communications represented or about the factor alleged by the experimenter to be the distinguishing feature of the two. The risks involved in such overgeneralizations are obvious, and the studies reported in this chapter should be regarded as experimental comparisons of the effectiveness of specific alternative presentations rather than as experiments with controlled variation of the factors that appear to distinguish two alternative classes of presentation.

THE COMPARATIVE EFFECTIVENESS OF A SOUND MOTION PICTURE AND A FILM-STRIP PRESENTATION

1. GENERAL DESCRIPTION OF THE STUDY

This study was designed to determine the relative effectiveness of a sound motion picture as compared with a "film-strip" presentation as educational devices in a basic training subject. (A "film strip"

is comparable to slides, except that successive "stills" are developed as positives on a strip of film; these are used either in conjunction with a synchronized recording or with explanations by an instructor) The purpose of the study, as conceived by those responsible for the request from the military Training Division, ASF, was to compare the teaching effectiveness of training movies, which are expensive and time-consuming to produce, with that of film strips, which can be quickly produced with a minimum of equipment and cost. Their belief was that film strips were close enough in effectiveness to movies that the time and expense factors were the more important ones to consider. On the other hand, the general feeling in training circles at the time of the study was that sound movies are far superior to film strips.

The instructional topic used in the study was the elementary principles of map reading. This choice of subject was dictated in part by the availability of a standard, widely used Army training film and of a film strip presenting the same topic.¹ The film used is quite typical of a large number of films on technical and semitechnical subjects and was, according to distribution figures, one of the most widely used Army training films.

The choice also involved considerations of feasibility in measuring the effects of instruction for large groups of men. A "paper and pencil" test was considered to afford a sufficiently practical and realistic test of the abilities involved in a subject such as elementary map reading. (In contrast, a practical test of the effects of film instruction on many other subjects, such as rifle marksmanship, would of course have to include shooting records or similar measures of actual performance in the use of equipment.)

The basic plan of the experiment was to show the map-reading film to one group, while at the same time another group was taught the same subject by film-strip presentation. About half a day after seeing the film or film strip, each group was given a pencil and paper test designed to measure knowledge of the subject matter that had been presented. The same test was also given to a control group that had received no instruction. The test approximated the types of response involved in utilizing the instruction in actual performance in map reading.

The film was tested on a group of trainees at a Quartermaster Replacement Training Center. The men were slightly higher in in-

¹ The sound-film used was the US Army subject TF 5-12, the film strip was the Army film strip FS 5-1.

telligence and in amount of formal education than the Army as a whole. None of them had received any previous Army instruction on the subject of map reading.

2. EXPERIMENTAL PROCEDURE AND DESIGN

Selection and balancing of the groups to be given each form of instruction. As indicated above, the essential method of comparison was to select groups that were as closely identical as possible with respect to all relevant factors except the type of instruction they had received, and then to compare the scores of these groups on a test of the material covered. The effect of each form of instruction is indicated by the differences between the mean score for each instructional group and the mean scores made by the "control group" which received no instruction on the subject. None of the men in the experimental groups were told in advance that they would be tested on the material covered.

As in studies of orientation films, the sample was selected in company units rather than on an individual basis. From company rosters giving the AGCT classification and educational level of each man, two companies to be given each form of instruction were chosen in such a way that the different forms of instruction would be applied to groups of similar composition. The final samples used in analysis were exactly equated for AGCT class and educational level achieved.

The schedule of instruction was arranged so that the groups receiving the two different kinds of instruction would be balanced as closely as possible with respect to average length of time in training, time at which instruction was carried out, and kind of activity preceding and following instruction. Similarly, these factors were balanced as closely as possible between the control group and each of the two instruction groups.

Details of Procedure for the Two Forms of Instruction

Motion picture. The men who received sound-film instruction were shown the standard Army training film on map reading during the course of an hour's session of training-film showings in a post theater. One company of men saw the film in the early afternoon, the other group early in the morning. The map-reading film required 43 minutes showing time. In accordance with usual practice at this and other replacement training centers, two additional short films (on a different subject) were also shown to complete the hour's session of films. These two short films preceded the map-reading

film in the morning session and followed it in the afternoon session.

Film-strip The four platoons of one company received instruction in the morning; the platoons of the other company met in the afternoon. Thus half of the men both in the film-strip and movie groups received morning instruction, and half received afternoon instruction. The film-strip instruction was given in recreation buildings to only one platoon at a time, each platoon being taught by a different instructor. This was desirable in order to keep the size of groups below the maximum generally considered to be feasible for film-strip instruction, and to simulate as closely as possible the actual conditions of use in field installations. The film-strip instruction for each platoon covered a period of approximately 50 minutes, or just slightly more than the time required to show the training film to the other groups.

In order to control the way the instruction was given and to obtain greater comparability of the material covered by various instructors, each instructor was given a schedule of the procedure to be followed and an outline of the major points that the film-strip instruction was to cover. Each instructor also previewed the film strip, and received copies of the "Notes on Map Reading," issued in connection with the film strip. Since the film and film strip differed somewhat in the emphasis given to various topics, these notes were edited slightly in order to make the film-strip presentation more nearly parallel to that of the motion picture.

These arrangements were desirable to insure some degree of uniformity in the use of the materials by various instructors. They also served to approximate roughly, in the opinions of training officers, the amount of supervision and assistance that instructors would normally be expected to receive in a Replacement Training Center operating on the basis of a centralized training program. All instructors were, however, requested to prepare their instruction independently. The instructors used were selected from a large pool of available officers in such a way as to approximate "average" teaching ability as indicated by ratings made by their immediate superiors.

The instructors were aware of the purpose of the experiment and were assured in good faith that the results of tests would not be used to reflect credit or discredit on the instructors as individuals, but were designed only to test the *method* of instruction. It was made clear to them that, accordingly, they should prepare and carry out their instruction with the same amount of effort and care—no more

and no less—as they would normally apply to regularly scheduled instruction. Finally, the instructors and all other relevant personnel involved in the study were cautioned against revealing the purpose of the experiment to any of the men serving as subjects and they were shown the necessity of treating all of the instruction exactly as if it were part of the regularly scheduled training program.

“Fairness” of the comparison between sound-film and film-strip. It is apparent that various alterations in details of procedure noted above might have altered the relative effectiveness of the two types of presentation. The film-strip presentation could, for example, have been held to exactly the same time limit (43 minutes) as was required to show the film; or the showing of the two additional short subjects to the film group, which might introduce some interference effects, could have been omitted, or more expert instructors could have been used for the film-strip presentations. Choice of the particular conditions used was, however, based not on an attempt to provide ideal or optimal presentations for each medium, but only on an attempt to approximate prevailing conditions under which each type of instruction was likely to be used in typical Army training programs.

3. CONTENT AND ADMINISTRATION OF THE TEST USED

The test used consisted of 39 multiple-choice items, each requiring the men to select the correct answer out of four answers printed on the blank. For example.

The direction in which a compass points is called . (check one)

- ☐ true north
- ☐ grid north
- ☐ azimuth north
- ☐ magnetic north

Since the film instruction was expected to impart, in the main, only the essentials of the subject, the test was composed almost entirely of questions designed to find out how well these *essentials* had been learned. The questions did not therefore, test the extent to which men had learned to make relatively complex applications of the material shown, such as, for instance, the construction of profiles from a contour map. Half of the questions involved verbal knowledge of facts, terms, or principles, the other half required the men to refer to simple maps and diagrams printed on the test blanks.

Since the test covered only factual material, it was not necessary

to camouflage the purpose of the test as in the studies of orientation films, in which opinions as well as facts were involved. In the present case it was administered *as a test*, the men being told it was to find out how well they had learned how to read maps and being asked to sign their names to their test paper. This tended to maximize test motivation. Having the papers signed also permitted the experimenters to obtain AGCT scores from company rosters as an additional item of background information.

As mentioned earlier, no prior announcement of the test had been made. Officers were trained to administer the tests in a standardized manner. The testing was conducted in recreation buildings, each test group consisting of two platoons of men. If instruction had been received by a particular pair of platoons in the morning, the testing of that pair of platoons was performed the same afternoon, if instruction was given in the afternoon, the men were tested the following morning.

4. OVERALL EFFECTIVENESS OF THE TWO INSTRUCTIONAL METHODS

Figure 1 summarizes the overall relative effectiveness of the sound-film and film-strip instruction studied by showing the average test score received by the men in each group. The test scores are expressed as the *average percentage* of correct answers

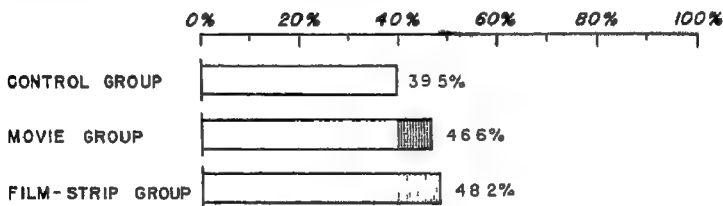


Figure 1 Average test scores received by men in each group (N = 253 in each group)

The data show reliable evidence of learning from both forms of instruction, but there is no reliable evidence that either form was superior to the other.²

The comparison shown in Figure 2 indicates that the same results are also obtained when more intelligent men (AGCT Classes I and

² The critical ratios of the mean difference between control group and either experimental group are larger than 4.0, indicating less than one chance in a thousand that such differences would be obtained by chance. The difference between the film-strip and movie groups, however, is only about 1.3 times its standard error, and differences this large in one direction or the other would be expected to occur by chance about one time in five if the two presentations were actually equally effective.

II) and the less intelligent (AGCT Classes III and IV) are considered separately.³

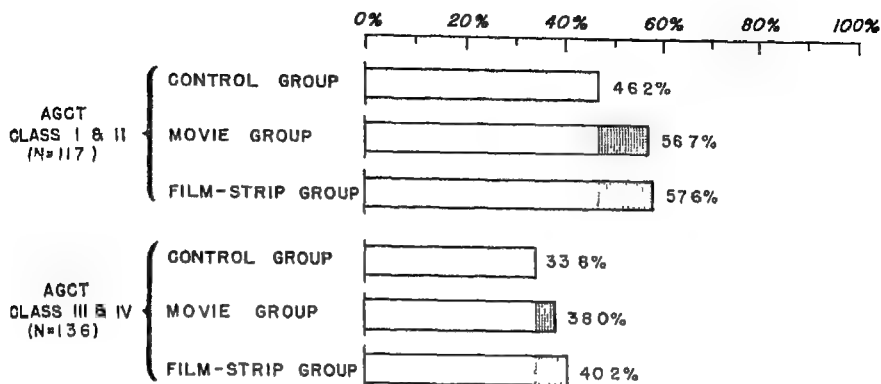


Figure 2. Average test scores received by men in each group (shown separately for men with "higher" and "lower" intelligence scores)

5. COMPARING EFFECTIVENESS FOR DIFFERENT TOPICS

The relative effectiveness of the two presentations in conveying material was compared for each of the main topics covered in the instruction. The bulk of the subject matter fell into three main categories: (1) distance and direction, (2) "azimuths," and (3) contour maps and elevation. Table 1 shows the average test scores on these main subdivisions of the subject matter for men in each instructional group. The test score here is the average percentage answered correctly of those items dealing with each main topic.

TABLE 1
AVERAGE TEST SCORES ON MAIN SUBDIVISIONS OF SUBJECT MATTER

| | SUBDIVISION OF SUBJECT MATTER | | |
|------------------|---|-------------------------------------|---|
| | <i>Distance and direction (11 test items)</i> | <i>Azimuths (11 test items)</i> | <i>Contours and elevation (11 test items)</i> |
| Control group | 46.5% | 37.2% | 33.5% |
| Movie group | 49.5 | 41.1 | 48.5 |
| Film-strip group | 53.9 | 42.5 | 46.9 |

³ The critical ratios of the differences between control group and either experimental group for the high and low intelligence subgroups compared are in all cases larger than 3.0. The critical ratios of the differences between film-strip and movie groups, however, are only about 1.4 for AGCT Class III and IV men and 0.7 for AGCT Class I and II men.

These data show no statistically reliable superiority for either experimental group over the other for the second and third of the three main topics considered. The mean difference of 4.4 per cent in favor of the film-strip group on the first topic ("distance and direction") is reliable at about the .01 probability level. Essentially the same picture, as far as direction of differences between film strip and film for various topics is concerned, was found for the low AGCT men as for the Class I and II men.

6. COMPARATIVE EFFECTIVENESS FOR SPECIFIC POINTS

A comparison of the effectiveness of the two presentations in getting across *specific points* covered by both presentations revealed few suggestions as to educational advantages or disadvantages inherent in either of the two media. For some specific points in which one presentation or the other was superior in effectiveness, the differential effectiveness appeared to be the result of differences in the particular device that happened to be used to present the point, rather than being a function of any inherent difference in the two media as such. For example, in attempting to teach men to use a graphic scale to measure distances on a map, the movie used the rather unrealistic device of showing the distance scale being lifted up out of the corner of the map and applied to the map distance to be measured. The film strip, more realistically, illustrated the use of a strip of paper to transfer map distance to the scale for measuring. It was interesting to observe that the film-strip presentation appeared to be the more effective in increasing the already high proportion of men who were able to measure correctly the distance between two points on a map. This result is shown in Figure 3. (The high initial level of performance shown for this particular point is doubtless due to familiarity with the scaling procedure already gained by many individuals in the course of their schooling.)

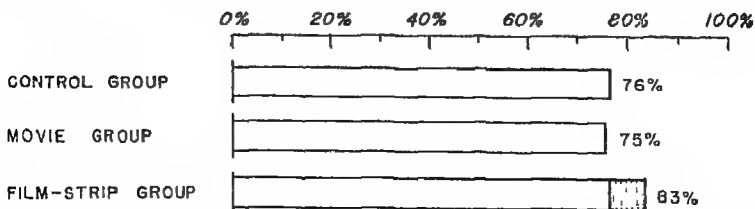


Figure 3 Proportion of men who knew how to use a distance scale to measure distances (average of 2 test items).

This finding suggests that, in either medium, reliance should not be placed on the audience members to make for themselves the transfer from a general explanation to the specific details of performance. Thus in this instance the presentation which showed precisely what to do to measure distance was the more effective one. (The data also suggest that in this instance the superiority of the more explicit method was greater for the less intelligent men, although the second order difference between AGCT groups is not large enough to be reliable.)

Most of the differences found in effectiveness on other specific points appeared, similarly, to be a function of particular presentation devices which could be used in either medium. However, there was one outstanding case of a differential effect which probably illustrates a real difference between the media, and an advantage for motion pictures over projected stills in teaching certain kinds of material.

In showing the measuring of contour interval, the motion picture used a moving viewpoint (from horizontal to vertical) to show how differences in elevation of terrain are projected onto a map in the form of contour lines. Here the movie was more effective than the film strip, which could not use a comparable device. The comparative data are shown in Figure 4.

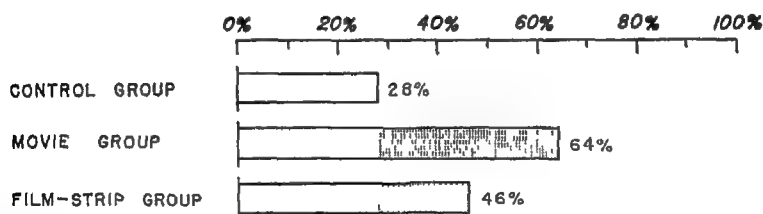


Figure 4 Proportion of men who knew what the space between contour lines represents on a map

Here the large effect of the motion picture appears to be due to the fact that in a movie the object being photographed can remain still while the angle from which it is viewed is progressively altered. Thus we have the hypothesis that where familiarity with three-dimensional spatial relationships is important in learning the material, movies have an inherent advantage that cannot easily be equalled by film strips.

Perhaps the most interesting aspect of the results of this study is

the fact that on the whole the two presentations were about equally effective. But, as has already been stressed, this finding tells us little about the inherent potentialities of the media of still versus moving pictures as components in presenting instruction. Since the study did not employ controlled variation of the factor of motion with other factors held constant, the results merely show that this particular film strip was on the average about as effective as this particular movie. However, this finding does have a practical bearing on the assumption sometimes made that motion pictures *always* provide better instruction than that attainable with the less costly film strip. Obviously, a single exception such as that provided by the present study suffices to disprove such a generalization.

THE COMPARATIVE EFFECTIVENESS OF "DOCUMENTARY" AND "COMMENTATOR" RADIO PRESENTATIONS

The study reported in this section furnishes an additional example of the kind of research in which specific examples of two media are compared. As in the study just described, the results are strictly applicable only to the specific presentations studied although the data may suggest some hypotheses as to inherent advantages or disadvantages of the media represented by these presentations.

At the time this study was conducted, a topic of debate among technicians and producers of informational radio programs concerned the relative effectiveness of the dramatic "documentary" and the commentator type of program. In the documentary, use is made of actors, sound effects, and background music to present factual material by "acting out" the underlying events. In the commentator type of program an "expert" in a position to know and interpret the facts discusses the topic.

The preponderance of opinion among radio personnel appeared to be that the documentary was far superior to the commentator program, but a few believed the latter would be equally or more effective at changing men's opinions. In this controversy the main argument on the side of the documentary program concerned the factor of interest. It was alleged that the audience would pay closer attention to a dramatic show because of its greater interest and would therefore learn more from it, whereas they would be likely to pay less attention to a commentator. The argument on the other side of the case was that a dramatic program would not be taken seriously—it would be reacted to much as a "soap opera" or a dramatic show for entertainment purposes. Moreover, it was

alleged that such programs would be regarded as propagandistic, the musical effects being perceived as a means of influencing emotions and the use of actors being treated as evidence of the fictional and unauthentic nature of the material used. A further consideration was that a commentator program could be written and transcribed in one day, with a minimum of expense, whereas a documentary usually took longer to write, rehearse, and produce and involved an expensive cast of actors, some "live" music, technicians to "dub in" recorded music and sound effects, and so forth.

An experimental comparison of the two types of programs was carried out in conjunction with a study using controlled variation of content that is reported in Chapter 8. Four programs were prepared, two each of the commentator and documentary type.⁴ The two forms of each type of program differed with respect to a content variable that is not the concern of the present treatment (presentation of arguments on "both sides" vs. just on "one side" of a controversial issue). Only those aspects of the study relevant to the comparison of the commentator and documentary types of presentation will be reported in the present chapter.

1. NATURE OF THE RADIO PROGRAMS

The radio transcriptions used were prepared specifically for experimental purposes by the Armed Forces Radio Service in consultation with Experimental Section personnel. The subject of both the "commentator" and "documentary" programs was the same—the difficulty of the job ahead against the Japanese. The "message" of the programs was that there still remained a difficult job against Japan that would probably take at least two years after VE Day to accomplish, a message that turned out to be grossly incorrect but which in absence of knowledge of the atomic bomb appeared reasonable at the time of the study. The factual material in the program was obtained from official War Department and Office of War Information releases, and the message was in line with the informational policy of both agencies at the time of the study.

The degree of comparability in the content of the two programs is perhaps best indicated by describing how the content was determined. An outline of the factual documentation was prepared by Experimental Section personnel. The two script writers, one for the commentator programs and one for the documentaries, used

⁴ The writer for the commentator programs was Lloyd Shearer, the writer for the dramatic programs was Robert Lee

this outline as the source of their material. Because the commentator programs were also being used as part of the material for the controlled-variation study referred to earlier, the writer of these programs adhered closely to the sequence of topics in the outline and was more restricted in his range of improvisation. The writer and producer of the documentary shows had a freer hand in the preparation of his programs, consequently the content of these programs differed from that of the commentator programs in various details. However, these differential factors did not greatly influence the preparation of the programs. Both writers took on the job without any advance preparation of their own material, and they both followed fairly closely the outline provided for them.

2. EXPERIMENTAL DESIGN AND ADMINISTRATION

The experiment used the before-after design. One week before the presentation of the radio programs a "survey" was made in the outfits used in the study. This "survey" was ostensibly on the topic of redeployment from the European to the Pacific Theater of Operations and the point system for discharging veterans, but it permitted the introduction of questions about the probable length and difficulty of the war with Japan after VE Day in a very logical context of questions. Men's answers to these questions constituted a "before" measure to be used in ascertaining the effects of the transcriptions. One week after this "before" survey, the transcriptions were presented in orientation meetings as introductory material to be used as a basis for discussion of the topic, "How Long Will the War with Japan Last?" The orientation meetings, held in platoon-size groups, were conducted by second lieutenants selected from the available local personnel on the basis of previous teaching experience and trained as "orientation officers" for the experiment. At the outset of each meeting the officer explained that before the meeting was thrown open for discussion he would play a transcription of a radio program giving some of the facts on the Pacific War. These were the projected conditions for using such programs. A significant feature of these conditions was that the radio programs could not be tuned in or out by the men, rather, attendance was required as with orientation films.

After the transcription had been played, the men were given a short questionnaire which constituted the "after" measurement in the experiment. The conditions of administering the "after" survey were made as different as possible from those obtaining in the

"before" survey; they were administered by different personnel, in different buildings, with different groupings of men, and with formally different questionnaire blanks. The officer told the men that the people who made the program wanted to find out the soldier's "own honest opinions" of the transcription and had prepared a brief anonymous questionnaire for the men to fill out. In addition to getting the men's opinion of the program, the questionnaire contained some "incidental" questions concerning opinions about the content of the programs—e.g., opinion concerning whether the program seemed overoptimistic or overpessimistic, and what the men personally thought would be the probable length of the war. These responses were designed to provide information on the effectiveness of the material, obtaining this "additional" information was actually, of course, the main purpose of the study. Men in control platoons who heard no program filled out a similar questionnaire about what they thought of the Army orientation programs in general, a questionnaire which also contained the "incidental" questions significant to the study.

The study was carried out among the personnel of eight Quartermaster Training Companies during the first two weeks of April 1945. Sixteen of the 32 platoons attended orientation meetings at which one or the other of two *commentator* programs was played, eight platoons heard one or the other of two *dramatic* shows, the remaining eight platoons served as a *control* and heard neither of the programs. This allocation of subjects, giving more cases to the commentator program, was in line with the primary purpose of the study reported in Chapter 8, which was the comparison of the controlled content differences between the two commentator programs. The platoons were utilized in a manner so that any inter-company differences were controlled. In each of the eight companies one platoon served as control, two platoons heard one each of the two commentator programs, and one platoon heard one or the other of the two dramatic programs.

About half of the men surveyed were new recruits receiving their first military training, and about half were veterans who had been in the Army for some time and who were being trained for re-assignment.

As has been noted in the foregoing description of the experimental procedures, two kinds of data were obtained for comparing the programs. the audience's evaluation of the programs and the before-

after measures of opinion for determining experimentally the programs' effects. The former will be presented first.

3 AUDIENCE EVALUATIONS OF THE TWO KINDS OF PROGRAMS

Level of general interest. One direct and two indirect measures of general interest were contained in the questionnaire. On the direct measure the vast majority (over 90 per cent) of both groups of men—those who heard the commentator program and those who heard the dramatic program—found the program either *very* or *fairly* interesting. The question and results are shown below for the two types of programs

Question. "Was this radio program interesting to you, or was it dull and uninteresting?"

| | PROPORTION OF MEN CHECKING EACH ANSWER | |
|-------------------------------|---|--|
| | <i>Commentator programs (N = 524)</i> | <i>Dramatic programs (N = 245)</i> |
| "Very interesting" | 69% | 71% |
| "Fairly interesting" | 26 | 25 |
| "Not very interesting" | 3 | 3 |
| "Very dull and uninteresting" | 2 | 1 |
| Total | 100% | 100% |

It is apparent that no significant differences between programs were obtained with respect to this point

One indirect measure of interest was also obtained by asking the men whether in future orientation meetings they would like to hear other radio transcriptions of the same sort

Question. "In future orientation-hour meetings would you like to hear recordings of radio programs like this one on other subjects connected with the war?"

| | PROPORTION OF MEN CHECKING EACH ANSWER | |
|---|---|------------------------------|
| | <i>Commentator programs</i> | <i>Dramatic programs</i> |
| "Would like to hear them" | 83% | 88% |
| "Would not like to" or "Would not care one way or the other" | 15 | 11 |
| No answer | 2 | 1 |
| Total | 100% | 100% |

As before, the slight difference in favor of the dramatic programs was not statistically significant.

Another indirect measure of interest was obtained by asking the men who heard a program whether they thought it was too long, too short, or about the right length. Very few of the men thought any of the programs were too long, a finding which may be interpreted as indicating a high degree of interest. The results are shown below, subdivided according to the actual length of the programs.

Question "How about the length of the program you heard today—was the program too long, too short, or about the right length?"

PROPORTION OF MEN CHECKING
EACH ANSWER

| | <i>Commentator programs</i> | | <i>Dramatic programs</i> | |
|------------------------------------|-----------------------------|-------------------|--------------------------|-------------------|
| | <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> |
| <i>Approximate time in minutes</i> | <i>15</i> | <i>19</i> | <i>16½</i> | <i>20½</i> |
| | (<i>N</i> = 261) | (<i>N</i> = 263) | (<i>N</i> = 104) | (<i>N</i> = 141) |
| "Too long" | 2% | 1% | 2% | 3% |
| "About the right length" | 66 | 76 | 52 | 67 |
| "Too short" | 31 | 21 | 45 | 28 |
| No answer | 1 | 2 | 1 | 2 |
| Total | 100% | 100% | 100% | 100% |

If the category "too short" implies a high level of interest, these results indicate that both the shorter (3) and the longer (4) versions of the dramatic program were more interesting than the corresponding commentator forms (1 and 2, respectively). On this question the difference between programs 1 and 3 is statistically reliable (at the 1 per cent level of confidence). It can also be seen that "too long" was a very infrequent response to any of the programs, indicating that neither program was boring. (This may be partly due to the fact that the use of radio transcriptions in orientation meetings was a novel experience to the men; under other circumstances the degree of interest expressed in the same programs might have been lower.)

Belief in authenticity of the programs. With any type of information program there were always some of the men who regarded the materials as "misleading" or as "propaganda" despite great care in factual documentation. An important possibility mentioned earlier in connection with the authenticity of radio transcriptions is that a dramatic presentation, with its background music, sound

effects, actors' voices, and dramatizations, might be considered by the men as trying to work on their emotions and as "fictional" rather than "based on facts." However, the findings for these programs show no important differences between the commentator and dramatic shows as far as the men's evaluation of the authenticity of the transcriptions is concerned

Three questions were asked dealing with the authenticity of the programs, one concerning the accuracy of the facts, a second on the fairness of the selection of material, and the third about the presence or absence of "propaganda." The results are shown in Table 2

TABLE 2

THREE MEASURES OF AUDIENCE EVALUATION OF PROGRAM AUTHENTICITY
PROPORTION OF MEN CHECKING THE VARIOUS ANSWERS TO EACH QUESTION

| | <i>Commentator programs</i> | <i>Dramatic programs</i> |
|--|---------------------------------|------------------------------|
| 1 <i>Question</i> : "Did you feel that the information about the Pacific War given in this radio program was true and accurate?" | | |
| "It all seemed accurate" | 65% | 68% |
| "Mostly accurate, but partly inaccurate" | 20 | 18 |
| "Often inaccurate" | 2 | 3 |
| "Don't know" | 11 | 10 |
| No answer | 2 | 1 |
| Total | 100% | 100% |
| 2. <i>Question</i> . "Do you feel that the radio program gave a fair and honest picture of the job ahead of us in the Pacific, or did the facts given seem too one-sided?" | | |
| "It gave a fair and honest picture" | 72% | 75% |
| "It seemed too one-sided" | 26 | 23 |
| No answer | 2 | 2 |
| Total | 100% | 100% |
| 3 <i>Question</i> . "Was there anything about the radio program that seemed like propaganda?" | | |
| "None of it seemed like propaganda" | 65% | 62% |
| "Some of it seemed like propaganda" | 29 | 29 |
| "All of it seemed like propaganda" | 4 | 6 |
| No answer | 2 | 3 |
| Total | 100% | 100% |

On each of the three questions above, the differences between the two types of programs are too small to be outside the range of sampling error. The frequent allegation that documentaries would seem propagandistic certainly received no support from these data.

For both types of program the results seem to indicate a relatively high degree of confidence in the authenticity of the material, especially in view of the fact that the majority of the men were initially opposed to the "message" (over 70 per cent believed at the outset that the Pacific War would end in less than 2 years after VE Day).

4. EXPERIMENTAL EVALUATION OF TRANSCRIPTIONS

Effectiveness of the transcriptions in getting across the main orientation "message." The main question used to evaluate the effectiveness of the transcriptions in getting across the "message" of the programs was one asking the men for their best guess as to the probable length of the war with Japan after Germany's defeat. As mentioned earlier, the content of the programs aimed directly at counteracting "overoptimism" about a quick end of the Pacific war.

The effects of the programs in this area were obtained by determining the net proportion of men who revised their estimate *upward* as a result of hearing the transcription. The "net proportion" is the proportion who revised their estimates upward by at least one-half year minus the proportion who revised their estimates downward by one-half a year or more.⁵ The results are shown below.⁶

TABLE 3

PROPORTION OF MEN WHO REVISED ESTIMATE OF PROBABLE LENGTH OF WAR WITH JAPAN AFTER GERMANY'S DEFEAT (REVISION = AT LEAST ONE-HALF YEAR)

| | <i>No program</i> (control group) (<i>N</i> = 181) | <i>Commentator</i> programs (<i>N</i> = 401) | <i>Dramatic</i> programs (<i>N</i> = 179) |
|---|---|---|--|
| No change | 63% | 45% | 42% |
| Revised estimate <i>upward</i> | 18 | 47 | 50 |
| Revised estimate <i>downward</i> | 19 | 8 | 8 |
| Net per cent revising upward (Per cent revising upward minus per cent revising downward) | -1% | 39% | 42% |

It can be seen in the above table that there was virtually no overall change in the control group during the period of about a week that intervened between the two surveys. Among those men who

⁵ A discussion of this statistic is presented in Appendix B.

⁶ The numbers of cases given in this table are smaller than those for preceding tabulations because individuals who failed to give an estimate in either of the questionnaires could not obviously be used in this analysis of change in response.

heard no program, about as many made a shorter estimate as made a longer estimate. However, among the men who heard either kind of transcription there was a marked change during the same period in the direction of revising estimates upward. The overall effect for the two programs is seen to be about the same; the slight difference favoring the dramatic program is not reliable statistically. Analysis of the data for high and low educational groups separately also showed no reliable differences between the two programs.

In addition to the general question as to the probable time required to defeat the Japanese, three other questions bearing on the difficulty of the job of finishing the war were included in the schedule given before and after the playing of the transcriptions. These related to Japanese resources, the possibility of Japanese surrender, and the extent of damage to Japanese industry by American air forces.

Effectiveness of the transcriptions in modifying men's estimation of Japanese resources. Past opinion surveys showed that one of the common beliefs of men who expected Japan to be a "pushover" was that Japan had insufficient resources and supplies to stay in the war for more than a short time. One of the points made in the radio programs was that Japan was estimated to have sufficient quantities of most war materials for at least two years of fighting. The natural resources in Japan's conquered empire and the stockpiles built up in the home islands since Pearl Harbor were both stressed.

The effectiveness of the two types of programs in getting across this idea was tested by a question asking the men whether or not they thought the Japanese had sufficient supplies of oil, steel, and other raw materials to last them through a long war. The results are shown below.

Question "Do you think the Japs will have enough oil, steel, and other war materials to last them through a long war? (Check one)"

| | PROPORTION OF MEN CHECKING KEY ANSWER; I E, "THE JAPS WILL SOON RUN OUT OF MATERIALS." | | |
|----------------|--|---|--|
| | <i>No program (control group) (N = 197)</i> | <i>Commentator programs (N = 428)</i> | <i>Dramatic programs (N = 188)</i> |
| Earlier survey | 60% | 56% | 53% |
| Later survey | 54 | 35 | 32 |
| Difference | 6% | 21% | 21% |

The results show no difference in the effects of the two kinds of programs. Both program groups showed about 21 per cent decrease in the number of men expecting that Japan would soon run out of supplies. This change was considerably greater than the 6 per cent change in the control platoons that heard no program.

Effectiveness of transcriptions on men's expectations of Japanese surrender. Another point made in the transcriptions was that Japan would not give up. According to the programs, the Japanese were expected to fight on to the very end in the hope that our casualties would become so large that we would seek a compromise.

Neither of the two kinds of programs effected a very great change in opinion on this subject, and no significant differences were obtained between the commentator and the dramatic program. The results are shown below:

Question "Do you think Japan will give up and surrender on our terms before they lose everything, or do you think they will keep right on fighting to the very end? (Check one)"

PER CENT SAYING THE JAPANESE WOULD
GIVE UP AND SURRENDER BEFORE THEY
LOSE EVERYTHING

| | <i>No program</i> <i>(control group)</i> (N = 197) | <i>Commentator</i> <i>programs</i> (N = 428) | <i>Dramatic</i> <i>programs</i> (N = 188) |
|----------------|--|--|---|
| Earlier survey | 40% | 48% | 44% |
| Later survey | 43 | 40 | 33 |
| Difference | -3% | 8% | 11% |

Effectiveness of transcriptions on men's evaluation of the damage done by our Air Force. Another argument for a short war with Japan frequently encountered in earlier opinion surveys was the belief that our bombing of Japan was doing so much damage to the Japanese war effort that they would soon be out of the war. Both types of programs attempted to counteract overoptimism about the damage that had been done by our air raids up to that time (April 1945). Each kind of program produced a fairly strong effect in reducing the men's estimation of the damage that had already been done to the Japanese war effort by our bombings, but the dramatic programs produced a significantly greater effect than the commentator programs. The results are as follows:

Question "What is your idea of how much damage our air raids in Japan are doing to the Jap war effort? (Check one)"

PER CENT SAYING OUR AIR RAIDS HAD
ALREADY GREATLY DAMAGED JAPANESE
WAR EFFORT

| | <i>No program</i> (<i>control group</i>) (<i>N = 197</i>) | <i>Commentator</i> <i>programs</i> (<i>N = 428</i>) | <i>Dramatic</i> <i>programs</i> (<i>N = 188</i>) |
|----------------|---|---|--|
| Earlier survey | 46% | 45% | 50% |
| Later survey | 49 | 29 | 20 |
| Difference | -3% | 16% | 30% |

It should be pointed out that the programs did not all devote equal time to this subject. The two commentator programs used about 3/4 minute and 1-1/2 minutes respectively on America's air war, and the two dramatic programs used about 1-1/2 minutes and 1-3/4 minutes respectively on this topic. However, almost identical results were obtained when only the two programs devoting about 1-1/2 minutes each are compared. It seems likely, therefore, that the greater effectiveness of the documentary on this point was due to a superior procedure used by the dramatic programs. The tonnage of bombs dropped on Germany was compared with that dropped on Japan by means of a bombing sound-effect, the noise was maintained for about 15 seconds to represent the tonnage that had been dropped on Germany up to that time, and for about a second to represent the tonnage dropped on Japan. This device, which was termed "sound graphing" by the writer of the documentaries, appears to be an advantage of this type of program that is not as applicable to (or at least not characteristic of) the commentator program.

CONCLUSIONS

As far as the initial question is concerned, the outstanding findings of this comparison of alternative presentations lie in the slightness of the difference found between the two kinds of programs. Contrary to some expectations, the commentator programs were just about as interesting as the dramatic programs, and the latter were considered just about as authentic and nonpropagandistic as the commentator programs. Both were about equally effective at changing estimates of the length of the war. The one outstanding difference between the two programs—effects on evaluation of the

damage done by our Air Force—suggests that the variety of methods available to the documentary provides such programs with some more effective procedures of presentation of material

COMPARISON OF INTRODUCING SUPPLEMENTARY MATERIAL AT THE BEGINNING AND THE END OF A TRAINING FILM

A frequently recognized consideration among users of instructional films is that the teaching value of a film may very likely be increased by some form of supplementary material that either focuses attention in advance on the important points to be presented in the film or consolidates after the film showing the material that has been presented. Thus one may either prepare the audience for the most effective reception of the film or one may assist the audience after the film to get the most out of what has been shown.

The locus in time of these two alternative procedures for supplementing the material presented in the film determines to a certain extent the character of the supplementary material used. Supplementary material *before* the film will generally take the form either of motivating the members of the audience or of focusing their attention on the salient points to be presented. On the other hand, after the film showing it is too late either to motivate the learning or to get the audience to pay maximum attention during the parts of the film judged important. Thus supplementation after the film usually concentrates on a review of what has just been seen. In this case the audience members may be motivated to retain selectively what has been shown by focusing attention on important points so that these will be rehearsed.

The present experiment was one in which these two alternative ways of supplementing a film were compared. The general question on which the study was based was more or less as follows: "If we have extra time to use in supplementing the showing of a training film, is it best to use this time before the film to focus attention on significant points or is it better to use the time for a review exercise after the film?" As in the two media comparisons just reported, this question in unqualified form probably cannot be given a definitive answer. The generality of the present findings is thus subject to restrictions of the kind noted earlier as characteristic of such comparisons of alternative procedures.

The experiment was carried out with the same 43-minute film on map-reading and the same test that has previously been described.

The introductory and review procedures used with the film are described below.

1. NATURE OF THE INTRODUCTORY MATERIAL

The introductory exercises consisted of a preliminary description by an instructor of what was to be presented in the training film. It stressed the importance of learning how to read maps and called attention to important points that should be learned from the film. This introductory session was conducted in groups of two platoons each, four platoons in the morning and four in the afternoon. At each session one pair of platoons was given the introductory explanation inside the camp theater where the film was to be shown, while at the same time the other two platoons were receiving the instructions outside the theater. The length of the introductory exercises was from 15 to 20 minutes; showing of the 43-minute film immediately following thus made the total time spent in instruction just slightly over one hour.

2. NATURE OF THE REVIEW EXERCISE

As in the case of the introductory exercise, this was conducted in four groups of two platoons each, one company in the morning and one in the afternoon. The film was shown without introduction. For the review exercise, conducted immediately after each showing, half of the men filed outside to an area in back of the theater, the other half remained seated in the theater. The basis of the review exercise was a quiz composed of 15 true-false questions designed to cover each of the major topics in the film, and was given orally by the instructor. After the men had marked answers to the questions on cards provided for the purpose, the instructor gave the correct answer to each question and explained briefly *why* the given answer was correct, thus reviewing the points to which the questions related. The entire exercise took up a little over 20 minutes.

3. SELECTION AND BRIEFING OF THE INSTRUCTORS

The instructors who gave the supplementary exercises were selected from a group of available officers and assigned on the basis of systematic ratings of their ability as classroom instructors made by a number of their superior officers. The assignments were made in such a way that each form of instruction would be represented by four officers as typical as possible in the range and average level of their rated abilities as instructors.

Each instructor was provided with a schedule of procedure and an outline of the major points to be covered by the film. References to manuals were furnished, arrangements were made for previewing the film, and, in the case of the follow-up exercise, a set of quiz questions was provided. In order to preserve a normal range of diversity in the quality and style of presentation, however, each instructor was asked to prepare his presentation independently. As in the case of the film-strip study previously described, the amount of assistance and supervision thus furnished was in the opinions of training officers roughly comparable with what would normally be the case in regularly scheduled instruction under a centralized training program in a Replacement Training Center.

All instructors and other personnel involved were cautioned against telling the trainees about the purpose of instruction and testing, which were carried out in all essential respects as if they were part of the regular training program. None of the trainees were informed in advance that they would be tested on the material covered by the instruction.

4. AVERAGE AMOUNT LEARNED FROM EACH TYPE OF FILM INSTRUCTION

The effectiveness of each type of instruction is shown in the chart below. It can be seen that the control men who had not seen the

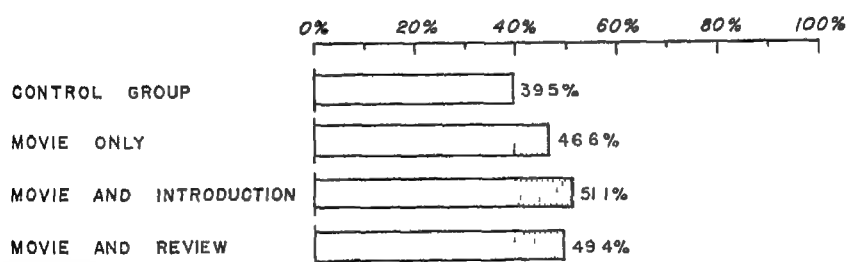


Figure 5. Average test scores for each group (N = 253 in each group)

training film averaged 39.5 per cent correct answers on the multiple-choice questions, whereas men who had seen the training film averaged higher and men who had one or the other of the supplementary exercises averaged still higher. The advantage shown for the film plus a supplementary exercise over the film by itself is statistically

significant, however, the apparent slight advantage of the introductory over the review exercise is not reliable ⁷

5. AMOUNTS LEARNED BY MEN OF DIFFERENT INTELLIGENCE LEVELS

A comparison was made of the amount learned when the men were dichotomized into higher and lower intelligence groups. This dichotomy was based on scores on the AGCT; "higher" was defined as Classes I and II on this test and "lower" was defined as Classes III and IV. No Class V men were included in the sample.

In comparing the results for men of different intelligence levels, account must be taken of the differing initial levels of knowledge of the two groups. Since the more intelligent men already knew more of the correct answers, fewer of the correct answers could be learned by them from the film. The proper comparison, therefore, must be based on the *decrease in the proportion of initially incorrect answers*—that is, the comparison should be based on the change obtained relative to the maximum change possible. (See also Chapter 3, pages 65-66).

The percentages obtained in the four groups of lower-intelligence men and in the four groups of higher-intelligence men are shown in the top part of Table 4 below. The lower part of this table is a tabulation of the average "effectiveness-index" or magnitude of the effects relative to the magnitude of the effects possible.

The last two lines of Table 4 indicate the gains from the addition of a supplementary exercise to the film showing. It can be seen that the gains were not greatly different for either type of supplementary exercise or for either intelligence group.

6. POSSIBLE MOTIVATING EFFECTS OF THE INTRODUCTORY EXERCISE

An introduction preceding a film may increase the amount men learn about the film's subject matter in at least two ways

a. By explaining and clarifying in advance some of the more difficult points to be presented in the film.

⁷ There were 253 cases in each group. A difference as large as that obtained between the introductory and review exercises would occur by chance 28 times in a hundred in one direction or the other. The chances of obtaining differences as large as those between a supplementary exercise and film alone are about 3 in a hundred for review and less than one in a hundred either for introduction or for combined results on introduction and review.

b. Simply by stimulating men's interest, motivating them to attend more closely to the showing and remember what they are shown.

Data indicate that the introduction operated in *both* of these ways in the case of the film studied. These data are derived from an accidental feature of the administration of the experiment. None of the instructors got all the way through their outlines of their talk in the time allowed for the introduction. Thus certain topics in the films were covered in the talks and others were omitted. This

TABLE 4
A. AVERAGE PERCENTAGE OF CORRECT ANSWERS

| | <i>Less intelligent men</i> (AGCT Classes III, IV) | <i>More intelligent men</i> (AGCT Classes I, II) |
|------------------------|---|---|
| Control group | 33.8% | 46.2% |
| Movie only | 38.0 | 56.7 |
| Movie and introduction | 43.0 | 60.4 |
| Movie and review | 41.4 | 58.6 |

B. AVERAGE EFFECTIVENESS INDEX
(Difference from control group, divided by per cent
wrong in control group)

| | <i>Less intelligent men</i> (AGCT Classes III, IV) | <i>More intelligent men</i> (AGCT Classes I, II) |
|------------------------------------|---|---|
| Movie only | 6.3% | 19.5% |
| Movie and introduction | 13.9 | 26.4 |
| Movie and review | 11.5 | 23.0 |
| <i>Differences from movie only</i> | | |
| Movie and introduction | 7.6 | 5.2 |
| Movie and review | 6.7 | 3.5 |

accidental "experimental variable" provided the interesting finding that effects of the introductory talk were obtained on topics not covered in the introduction, as well as on topics covered. In the table below, the values at the left show the average effect of the introduction on a series of questions covering topics which instructors outlined and explained in some detail just before the film was shown. The figures at the right show the corresponding average effect on questions concerning film topics which were *not* given attention in the introduction.

FILM EVALUATION STUDIES

Average effectiveness indices on two sets of material

| | <i>Topics covered in introduction</i> | <i>Topics not covered in introduction</i> |
|------------------------|---|---|
| Movie and introduction | 16.0% | 29.5% |
| Movie only | 5.8 | 22.7 |
| Difference | 10.2% | 6.8% |

As seen by the difference at the right, inclusion of the introductory exercise produced an appreciable gain in the amount subsequently learned about topics which were not given attention in the introduction itself. It is unlikely that this result is due to interaction with effects on the material that was covered; the two topics were sufficiently distinct in content so that better understanding of the material covered would have contributed little to the understanding of parts not covered. A likely interpretation is that the introduction had a motivating effect that made all parts of the material better learned.

Aside from the foregoing hypothesis, which forms an interesting by-product of the study, the principal result of the present experiment was that supplementing the film by either a short introduction or a short review increased the effect of the film presentation but that, with the introduction and review procedures used, neither had a significant advantage over the other. It is evident that the relative effectiveness of the two supplementation methods compared is a function of the particular procedures used in each. This restriction on generality well illustrates the limitations of the kind of research represented by the three studies reported in the present chapter, in which alternative procedures "representative" of different media or instructional methods are compared but without controlled variation of specified factors governing the effectiveness of the alternatives.

CHAPTER 6

EFFECTS OF FILMS ON MEN OF DIFFERENT INTELLECTUAL ABILITY

THE primary function of evaluative studies described in the preceding chapters was to determine the effectiveness of particular completed film products. Data thus obtained, however, can also be of value in formulating and testing general hypotheses concerning the effects of the films on subgroups of the total audience differentiated in terms of various demographic characteristics. As a basis for such differentiation, the questionnaires used in evaluating orientation films usually contained a number of items concerning such characteristics as age, education, religious affiliation, and marital status. In studies of training films, the characteristics usually obtained were years of schooling completed and scores on the Army General Classification Test (AGCT).

At the outset of the orientation film studies, analyses of the possible influence of a number of demographic factors were routinely made. These analyses were undertaken in the expectation that men's knowledge and opinions would be significantly related to characteristics of their personal history. But the studies showed the surprising result that region of birth, religious affiliation, marital status, Army rank or grade, length of Army service, age (within the adult range represented by the Army population), and several other personal-history items introduced in special studies showed few consistent or significant relationships to initial knowledge and opinion, and were almost uniformly unrelated to the effects of the films.

The one relationship which emerged clearly and consistently was the relationship of both information and opinion to intellectual ability, as indicated by AGCT score or years of schooling completed. Accordingly, this relationship will be our primary interest in the present chapter.

Special interest attaches to the analysis of the effects of films as a function of intellectual ability because of theoretical considerations.

The effects of a film presumably depend on the *learning* of material presented to members of the audience, and intelligence is intimately related to learning proficiency. Not only is intelligence related to ability to learn, but also it is related to other factors determining the effects of a film. For example, the more intelligent would be expected to be better able to see the general implications of the material presented even where conclusions are not explicitly drawn by the film. Similarly, intellectual ability would be expected to affect individuals' ability to evaluate critically the validity of implications and generalizations made in the film.

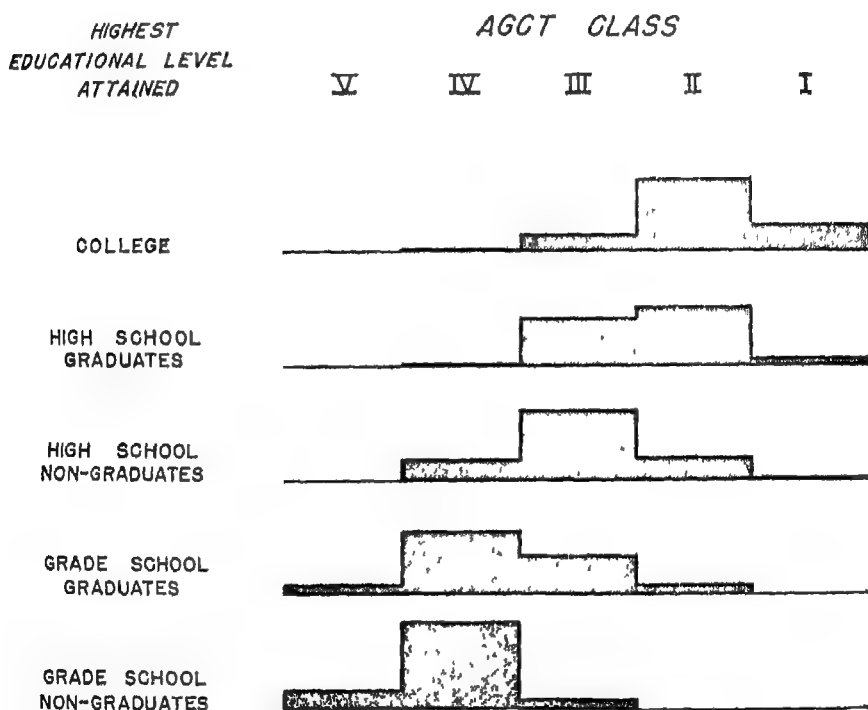
In order to relate intelligence to the effects of the films, it was necessary to adopt a suitable *index* of intellectual ability. Intelligence test scores would have had many advantages as such an index. However, it was not feasible to administer comprehensive tests of intelligence to the men who served in the present experiments. In the case of studies of training films it was possible to utilize the already available scores on the Army's standard test of general intellectual ability (Army General Classification Test or "AGCT").¹ But in studying orientation films, men did not put their names on their questionnaires because it was considered important to preserve anonymity, and it was therefore not possible to ascertain the AGCT scores of individual respondents. However, in these latter studies, respondents were always asked to indicate the number of years of schooling they had completed; and it was found that in the Army population there was a high correlation between years of schooling and AGCT scores. Accordingly, in the orientation film studies, educational level (years of schooling completed) was used as the index of intellectual ability. The use of this index was further supported by the finding in training film studies, when both educational level and AGCT score were available, that the two showed a closely similar relationship to the effects of the films.

Data supporting the use of level of schooling attained as an index of intelligence are furnished in a study by Lorge,² which reports a correlation of .66 between Otis intelligence test scores and highest grade completed. Correcting for the unreliability of the test and for the restriction of range of his subjects would of course be ex-

¹ For a general account of the development and characteristics of the AGCT, see "The Army General Classification Test," reported by the Staff of the Personnel Research Section, Classification and Replacement Branch, AGO, in the December 1945 issue of the *Psychological Bulletin* (Vol 42, No 10, pp 760-68).

² Lorge, I. "The 'Last School Grade Completed' as an Index of Intellectual Level" *Sch. and Soc.*, 1942, 56, 529-32.

pected to increase this value materially. Results obtained in the present studies and in more extensive tabulations made by the Personnel Research Section, AGO,³ confirm the existence of a substantial degree of relationship between level of schooling attained and scores on mental ability tests. In Figure 1, distributions of test scores on the Army General Classification Test for individuals with differing amounts of schooling are presented for a sample of 644 men used in one of the training film studies. The distributions are plotted in percentage measures, so that the area of each distribution totals 100 per cent.



[Figure 1 Relation between AGCT Class and educational level attained, for a sample of inductees (N = 644).

A correlation coefficient of slightly over .7 is indicated for the relationship shown when the AGCT classes and educational categories available are treated as equally spaced units. For other samples used in connection with the film research studies, the correlations ranged from about .50 to .80. The AGO studies report a correlation

³ *Op. cit.*, p. 765

of .73 between AGCT score and highest grade of school completed, for a sample of 4,330 soldiers.

The relatively high degree of relationship obtained is attributable in part to the fact that an adult population is involved, members of which have stopped their schooling at various points. The factors which cause individuals to drop out or continue in the educational system are closely correlated with intelligence. It is only because of this selective process that years of schooling may be used as an index of intellectual ability in an adult population. In a population still attending school, on the other hand, the correlation between intelligence and current grade level would undoubtedly be quite small.

The research design for studies of differential effects on various educational subgroups is relatively simple. Since the population characteristic used in analysis is not affected by the showing of the film, it is sufficient to have a control and experimental group tested after the showing of the film and to determine the differential effects of the film on groups of different intellectual ability by a comparison of film and control results among these different subgroups. This research design establishes only the nature of the correlation between intellectual ability and effects of the film. It obviously cannot establish the definitive causal relationships obtainable from controlled experiments. The correlational analysis can reveal the extent to which people of different levels of intellectual ability are affected by seeing a film, but it will not establish to what extent the relationship is due to native capacity per se and how much is due to other factors which vary concomitantly with intellectual capacity—for example, such factors as socio-economic status, and opportunity for schooling. However, in studying the effects of a variable like intellectual ability use of the experimental method is precluded since an experimenter cannot directly manipulate an individual's intellectual capacity.

FACTUAL INFORMATION LEARNED BY GROUPS OF DIFFERING ABILITY

1 INFORMATION LEARNED PRIOR TO THE FILM PRESENTATION

Even before the film showings, there existed wide differences in the amount of factual knowledge possessed by men of different educational attainments. Many of the points of factual information tested could be answered on the basis of sources other than the film

The superior initial performance of men of greater ability would reflect not only greater exposure to opportunities to acquire general information, but also greater ability to *learn and retain* the material to which they had been exposed. The relationship between information and intellectual ability (as inferred from educational attainment) is presented below for men in control groups who did not see the orientation films.

TABLE 1

PERCENTAGES OF MEN IN DIFFERENT EDUCATIONAL GROUPS KNOWING
ANSWERS TO INFORMATION ITEMS BEFORE FILM SHOWINGS

| | Grade school men | High school men | College men |
|--|---------------------|--------------------|----------------|
| <i>Average for all items significantly affected by orientation films studied</i> | 21.1% | 28.6% | 41.8% |
| <i>Examples on specific items.</i> | | | |
| Identity of Quisling. "Norwegian Traitor" | 23 | 52 | 69 |
| German Tactic for Blocking Allied Advance "herding refugees into the roads" | 18 | 31 | 52 |
| Reason Hitler wanted Norway "bases for bombers and U-boats" | 31 | 51 | 60 |

For material covered in *training films* a similar relationship was found between education and initial level of knowledge expressed on information tests.

TABLE 2

AVERAGE PROPORTION OF MEN AT THREE EDUCATION LEVELS KNOWING
ANSWERS TO ITEMS OF INFORMATION

| | Grade school men | Men with some high school education | High school graduates and college men |
|---------------------------|---------------------|---|---|
| Map reading film | 26.1% | 28.9% | 37.1% |
| Two first aid films (Av.) | 50.7 | 57.9 | 64.8 |

The pattern of responses for the majority of individual items asked of the men is fairly consistent with the average results shown above. A similar picture was found for the relation of AGCT score to knowledge of material covered in training films. Mean scores for men in three AGCT categories for the same film subjects are shown below.

TABLE 3

AVERAGE PROPORTIONS OF MEN IN EACH AGCT CATEGORY CHECKING
CORRECT ANSWERS TO FACT-QUIZ ITEMS IN TRAINING FILM STUDIES

| | <i>IV and V</i> | <i>AGCT Class III</i> | <i>I and II</i> |
|---------------------------|-----------------|---------------------------|-----------------|
| Map reading film | 25 1% | 30 5% | 38 4% |
| Two first aid films (Av.) | 50 2 | 57 9 | 65 7 |

2. AMOUNT LEARNED FROM FILMS

As would be expected, men of superior ability not only had better information at the outset but also acquired more from the film presentation. Illustrative of the general results on this point are those for the following item from the study used to evaluate the film "Prelude to War"

TABLE 4

PROPORTION OF MEN AT EACH EDUCATIONAL LEVEL WHOSE ANSWERS TO A
FACT-QUIZ QUESTION INDICATED THEY KNEW THE EXCUSE THE JAPS
GAVE FOR INVADING MANCHURIA

| | <i>Control group</i> | <i>Film group</i> | <i>Difference</i> |
|------------------|----------------------|-------------------|-------------------|
| Grade school men | 13% | 35% | +22% |
| High school men | 18 | 60 | +42 |
| College men | 25 | 73 | +48 |

The positive correlation between educational attainment and film effects on information items was a consistent phenomenon throughout the studies. The illustrative item also shows the previously noted relation of educational attainment and initial amount of information. To take account of the differential room for improvement occasioned by differing initial levels, the correction introduced by the "Effectiveness Index," referred to in Chapter 3, is employed.

Average results for all orientation films combined are expressed in these units in the table below.⁴

AVERAGE EFFECTIVENESS INDEX FOR FACTUAL INFORMATION IMPARTED BY
ORIENTATION FILMS (AVERAGE FOR 29 INFORMATION ITEMS SIGNIFICANTLY
AFFECTED OVERALL BY ORIENTATION FILMS STUDIED)

| | |
|------------------|-------|
| Grade school men | 16.3% |
| High school men | 36.6 |
| College men | 54.2 |

Closely parallel results were obtained in studies of training films, in which AGCT scores were available for analysis.

Probably the most significant factor accounting for the obtained results is the superior proficiency in learning which is associated with greater intellectual ability. But it is also well to bear in mind that the effects of superior intelligence will also be manifest in a number of indirect ways. More intelligent men, as a function of both selection and training, probably have a *higher degree of interest* in the material presented and *more motivation* to learn it. For another thing, individuals with more intelligence and more schooling will have acquired a *better context of related information* which would facilitate the acquisition of new facts. Also, the more intelligent and better educated men will probably have learned *better techniques of learning and remembering* facts presented to them.

3. DIFFERENCES IN THE LEARNING OF EASY AND DIFFICULT MATERIAL

The results just presented show that on the average the men of greater intellectual ability show more proficient learning of the correct answers to fact-quiz items covered by a film than do those of less ability. A factor that would be expected to affect this relationship is the difficulty of the material to be learned. Variation in difficulty would certainly be expected to raise or lower the overall level of amount learned. Thus the curve relating amount learned to intellectual level would be raised or lowered as a whole depending on the difficulty of the material. In addition, however, it might be expected that difficulty would change the shape of the curve. This would be expected on the presumption that the most proficient

⁴ Values for "average effectiveness index" given in this chapter are computed individually for each item and then averaged for the series of items

learners would tend to learn virtually *all* of the material, whether easy or difficult, whereas the amount of learning by the least proficient learners, regardless of difficulty of the material, would always be close to zero. At any intermediate level of learning proficiency, men would tend to show the greatest amount of learning for easy material, an average amount for average material, and the smallest amount for the most difficult material. Consequently, if separate curves are plotted to show the amount of learning of easy, average, and difficult material—with units of learning proficiency arbitrarily selected so as to give a linear relationship for “average” material—the curve for easy material would be expected to be negatively accelerated and the curve for difficult material positively accelerated, as illustrated in the hypothetical curves below.

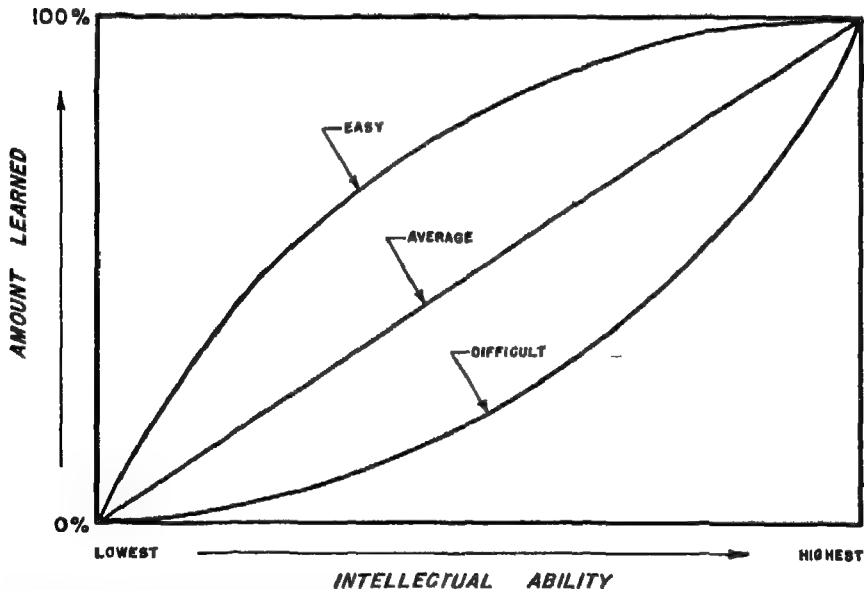


Figure 2. Hypothetical relationship between intellectual ability and amount learned, for easy, “average,” and difficult items

The question arises as to how important a factor difficulty of material is as a determiner of the form of the relation between amount learned and intellectual ability. In investigating data with reference to these relationships it becomes necessary to specify first how “difficulty of material” and “amount of material learned” are to be measured. In many situations involving tests, where one is dealing

with a test as a general measure of aptitude or proficiency, the "difficulty" of a test item is ordinarily thought of as inversely related to the proportion of men who can answer the question correctly. That is, the higher the proportion of initially correct responses, the "easier" the item would be considered. But in the present situation, where we are concerned with *changes* in information, or amount of learning, the more appropriate measure of "difficulty" is not *initial level* of correct response but difficulty of *learning* the material.

In order to determine the effect of difficulty on the shape of the relation between intellectual ability and amount learned, the effects of the orientation films on fact-quiz items of varying difficulty were analyzed separately for each educational level. A total of 42 fact-items were used to measure information changes for the four films studied. Of these, twelve were discarded because they showed no significant effects of the film. The remaining thirty items then were divided according to level of difficulty, as defined in terms of *overall effectiveness index* for all education groups combined. The total set of thirty items was subdivided into three groups: an "easiest" group (7 items), a "middle" group (16 items), and a "hardest" group (7 items). The composition of these groups of items in terms of overall level of difficulty is shown below

RANGE OF EFFECTIVENESS INDEX FOR ITEMS OF VARYING DIFFICULTY

| | <i>Range of effectiveness indices (for all men tested)</i> |
|------------------------------|--|
| 7 "easiest" items | 51% to 72% |
| 16 "medium difficulty" items | 17 to 45 |
| 7 "hardest" items | 4 to 16 |

The amount of material learned by each of three education groups is shown in the table below for the easiest, middle, and hardest groups of items. The first three lines of figures show the amount learned by each education group, in terms of the average effectiveness index for each level of difficulty. The second three lines of the table show the differences between successive education groups obtained from the three preceding lines of figures.

A slight degree of curvilinearity in the relationship is indicated by the fact that the difference between the lower and middle educational categories is larger than that between the middle and upper categories in the case of the *easiest* material, whereas the larger difference is between the two higher educational categories in the case of the *most difficult* material (In the lower part of the table it is

seen that the difference in learning between the grade school and high school groups is 26 per cent for the *easiest* material and only 12 per cent for the *hardest* material, whereas the difference between high school and college men is about 17 per cent for the *hardest* material and 15 per cent for the *easiest* material.) This pattern of differences is in line with the expectation that positively and negatively accelerated curves, respectively, would be found for easy and difficult material. However, the degree of curvilinearity obtained is very slight—the three curves relating amount learned to intellectual ability are nearly linear despite the fairly large differences in overall level of difficulty of learning the material. Apparently diffi-

TABLE 5

RELATION BETWEEN EDUCATIONAL LEVEL AND LEARNING OF FACT-ITEMS
FROM ORIENTATION FILMS, AS A FUNCTION OF DIFFICULTY OF ITEMS
(AMOUNTS LEARNED BY EACH EDUCATION GROUP, IN TERMS OF
AVERAGE EFFECTIVENESS INDEX)

| | EFFECTIVENESS INDICES | | |
|---------------------|-----------------------|--------------------|----------------|
| | Grade school men | High school men | College men |
| <i>Material:</i> | | | |
| Easiest | 35.1% | 60.7% | 75.3% |
| Middle | 11.6 | 30.3 | 49.9 |
| Hardest | 2.6 | 14.3 | 31.7 |
| <i>Differences.</i> | | | |
| Easiest | 25.6% | 14.6% | |
| Middle | 18.7 | 19.6 | |
| Hardest | 11.7 | 17.4 | |

culty of material does not greatly alter the shape of the relation of amount learned to intellectual ability, even though the range of intellectual ability is fairly large in the present results. It seems likely that if the range of intellectual ability could be extended the curves would converge at both ends. However such convergence as might be obtained would represent effects on only the very small proportions making up the most intelligent and the most unintelligent members of the population as a whole. For the great majority of the population it would appear from the present results that the relation between intellectual ability and amount learned is essentially linear regardless of difficulty.

Similar results were obtained in studies of training films where both educational level and AGCT scores were available. Analysis

by both indices of intelligence showed the same relationship as the results previously presented for the orientation films. These results based on all the significantly affected items from tests covering the effects of two training films on first aid are shown in the accompanying figure.

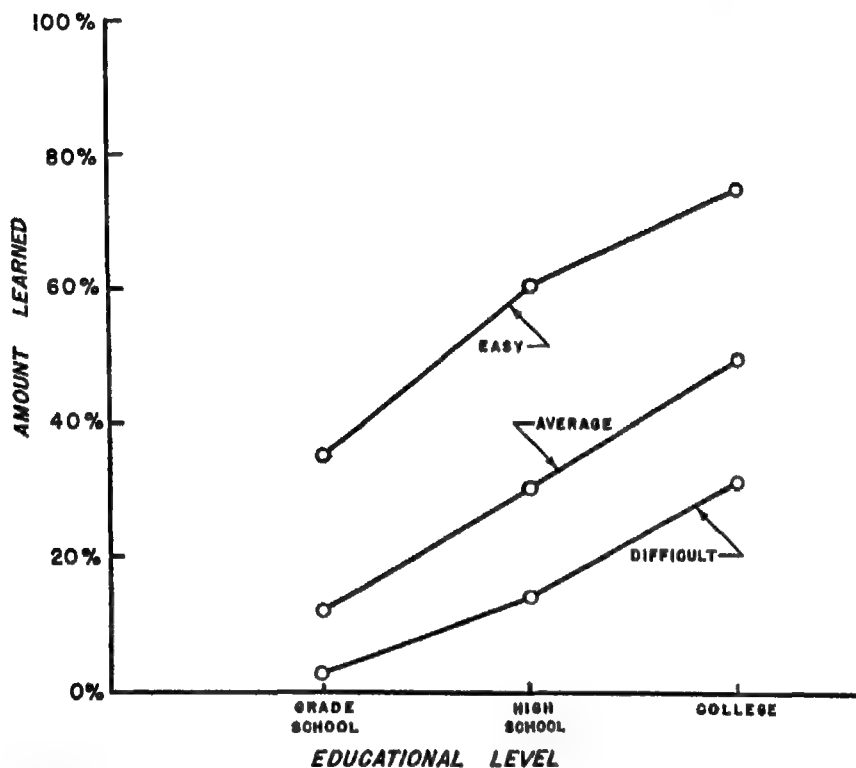


Figure 3 Obtained relationship between educational level and average per cent of fact-quiz items learned

In the foregoing discussion of the shapes of the "curves" relating intellectual ability to amount learned, it should be borne in mind that the problem of equivalence of units along either the vertical or the horizontal axis is critical to the shape of the curve obtained. In plotting results in the present studies, AGCT classes (I through V) were treated as if equally far apart. Presumably they are separated by equal distances in standard deviation units, since this was the basis used for designating the five classes. Also the educational categories of grade school, high school nongraduate, high school graduate, and college have been dealt with as if equally spaced.

The latter is obviously an inexact and arbitrary treatment. Using the number of years of schooling attained would have provided at least a superficially more equivalent set of units, but in the present studies the exact number of years of schooling was generally not recorded. However, while the effect of nonequivalence of units of intellectual ability is to make the absolute shape of a particular curve an arbitrary matter, it does not affect the direction of trends in the shape of the family of curves as a function of difficulty of material.

The same considerations apply to the units used to measure amount learned. In the present studies the effect of difficulty of material was investigated by using "effectiveness index" units—that is, amount learned was measured as the per cent change obtained divided by maximum change possible. Use of these units at least compensated for nonequivalence due to differing initial levels of knowledge (and consequent statistical ceiling effects) among the different intellectual groups, but the units used cannot be regarded as equivalent on other counts. However, the nonequivalence of these units (as in the case of units of intellectual ability) presumably does not prevent appropriate description of the *direction of changes* in shape as a function of the difficulty of the material

"A LITTLE KNOWLEDGE"

An interesting exception was found to the otherwise uniformly obtained positive correlation between intellectual level and the amount of change produced by a film on fact-quiz items. A *negative* correlation between effect and intellectual level was found in the few cases in which the film produced appreciable increases in the percentage choosing an *incorrect* answer.

An example illustrating this kind of result was observed in studying the cumulative effects of the second and third orientation films, "The Nazis Strike" and "Divide and Conquer." The films had shown that by the terms of the Munich Pact, Britain and France agreed to let Hitler take over part of Czechoslovakia, and also presented repeated instances in which the Nazis proceeded to occupy territory to which they had earlier disclaimed any interest. A question designed to get at the former point—terms of the Munich Pact—was worded as follows:

By the terms of the Munich Pact in 1938

—— The Nazis promised to stay out of Austria

- Britain and France allowed Hitler to take over part of Czechoslovakia
- The Nazis were permitted to remilitarize the Rhineland
- Hitler and Mussolini agreed to support each other in case of war

It will be observed that the second choice is the correct answer but that the first choice, which is incorrect, alludes to a "Nazi promise" which was contradicted by subsequent events. The film increased the percentage of men checking this incorrect answer, and this increase was most marked in the case of the less intelligent men (Figure 4)

On the other hand, the *correct* answer was learned by progressively larger percentages of men as educational level increased, the low

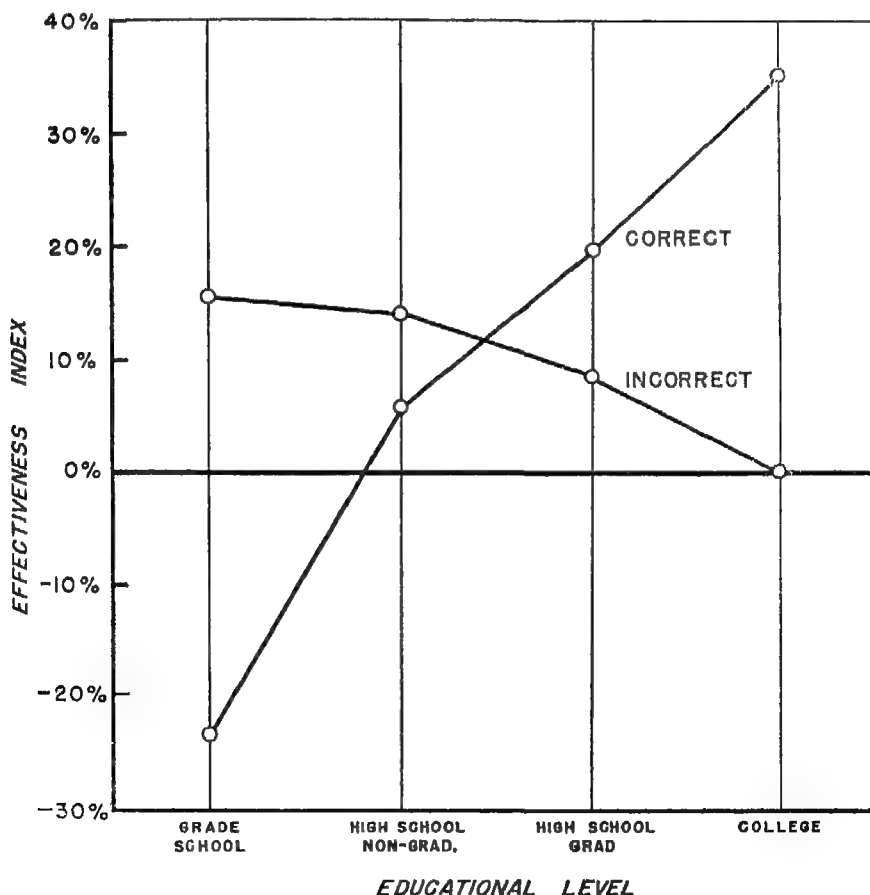


Figure 4. Effectiveness of film in changing answers to a fact-quiz item

point in this progression being represented by the grade school men, who actually showed a decrease in the proportion giving the correct answer after seeing the film.

Apparently the men of less intellectual ability were strongly impressed by the false promises of the Nazis and did not learn the significant details of the Munich Pact. Consequently they checked the answer which seemed most reasonable in terms of what they remembered best.

Several analogous examples were found in the study of these films and of "The Battle of Britain." As already implied, an explanation for this phenomenon can be given in terms of the fact that in any film presentation some points will inevitably be more impressively presented and hence better learned and remembered than others, and some of the less impressively presented facts will be well remembered only by the more proficient learners. If a test question then presents as alternative answers one choice which is an incorrect answer to the question but which is related to a point *well remembered* by many of the men, and a correct answer which refers to a point remembered only by the better learners, it would be expected that the better learners who remember both points can choose the one which correctly answers the question, whereas the less proficient learners, remembering only one associated point (which happens to be the wrong answer), will have an increased tendency to check it because it is the answer that strikes a familiar note.

If this hypothesis is correct an implication would be the necessity of making extremely explicit distinctions in a film on points which are judged to be important, rather than relying on the men themselves to distinguish between two closely similar implications. It is also suggested that the spectacular and impressive presentation techniques should be appropriately chosen in relation to the importance of the point to be made, when used on a minor point the men may generalize in ways which are clearly incorrect. This hypothesis is closely related to one presented later in the chapter on the problem of valid and invalid generalizations made by members of the audience, which applies with particular force in the case of opinions.

OPINION CHANGES AMONG GROUPS OF DIFFERENT ABILITY

In the studies of orientation films it was possible to relate intellectual ability not only to the effects of films on factual knowledge but also to effects on men's opinions. Analysis of the effect of films on men's opinions raises the difficult problem of distinguishing between

statements which represent "opinion" and those which represent "fact." There is often a considerable amount of arbitrariness involved in classifying statements as representing "fact" or as representing "opinion."

Perhaps the chief distinction implicit in classifying certain statements as "opinion" is that such statements are generally regarded as more difficult to verify than statements of simple fact. Thus, usually classed as opinion are statements making inferences as to intentions, motives, or reasons, or predictions as to what will happen in the future or what might have happened under certain circumstances. For example "The Germans bombed Rotterdam [for purely sadistic reasons]," "Britain will not make a separate peace with the Germans," or "The Nazis would force us to work as slaves if they were victorious."

A related characteristic often differentiating "opinions" from "facts" is the degree of generality of the statements. Statements representing syntheses or interpretation of a number of interrelated facts are generally regarded as "opinions." Statements representing summaries, conclusions, or generalizations from sets of specific facts are difficult to substantiate fully because of the large number of facts ordinarily required to prove or disprove them. For example, an evaluative statement of opinion corresponding to the comparatively specific and simple factual point that the RAF pilots were greatly outnumbered during the Battle of Britain is the following, "The RAF has done about the best job of fighting so far in this war." In order to establish the validity of the latter statement, a large number of facts, concerning the performance of the RAF and other fighting organizations with which an implied comparison is made, would have to be established and evaluated. In addition to assembling all the relevant facts in such a case, there would be the added difficulty of determining the proper way in which these facts should be weighted or integrated so as to arrive at the "correct" interpretation.

The distinction between statements of opinion and statements of fact obviously involves a continuum between those most clearly factual and those most clearly matters of opinion. For example, the statement that "The head of the German Air Force is named Goering" would be a "fact," whereas the statement, "The British are doing their fair share in helping to win the war," is clearly a matter of "opinion." Between such fairly clear-cut extremes of facts and opinions will obviously be a number of statements which

are more difficult to classify. Thus, whether the statement that "The German bombing attacks were part of a plan to invade and conquer Britain" would be regarded as "fact" or as "opinion" would depend on the amount of evidence available as to the actual plans of the German leaders.

It is to be expected, therefore, that what is regarded by one individual as a "fact" may be regarded by another as an "opinion." This factor had to be recognized in the conduct of the experimental evaluations of the film. Some items would probably be reacted to by all individuals in the audience as questions of fact; others would probably be uniformly reacted to as questions of opinion. Items that were clearly matters of opinion, or those which it was anticipated that some men would regard as "opinion" and others as "fact," were grouped together and labeled opinions to encourage a uniform set to perceive them as opinions. This was particularly important where an individual would be hesitant to express himself because he felt he lacked the necessary information or where he would be prone to give what he considered the "correct" answer (from the Army's point of view) instead of his own personal opinion.

"Fact" items were grouped together at the end of the questionnaire, and men were instructed to check the "true" answer, guessing if they did not "know" the answer. The instructions for the questions classed as "opinion," on the other hand, stressed the idea that men's "own personal opinion" was wanted—that frank opinions could be given freely because of the anonymity of the responses, that there was no "right" or "wrong" answer, etc.

ANALYSIS OF RESULTS

As in the case of factual information, an analysis was made of the magnitude of change in opinion among men in the various educational groups. Included in this analysis were data from each of the four films in the "Why We Fight" series on any opinion item which was reliably affected by the film. A total of 31 opinion items (6 for the first film in the series, 12 for the joint effects of the second and third films, and 13 for the fourth film) met this requirement. The results for these items are averaged in the table below.

A trend is seen for the effects of the films on opinion to increase with higher intellectual ability. However, inspection of the individual items shows this trend to be the result of averaging some items where the greater effects are among the men of higher intellectual ability and others where the greater effects were among those

of lesser ability. Consequently, the positive and negative correlations will partially offset each other in determining the average trend. This is in contrast to the situation existing in the case of items of factual information where almost invariably the effects showed a positive correlation with intellectual ability. Opinion

TABLE 6

AVERAGE INITIAL LEVEL, FINAL LEVEL AND EFFECTS OF FILM ON
OPINION ITEMS FOR MEN OF VARIOUS EDUCATIONAL LEVELS

| <i>Per cent giving favorable answers</i> | <i>Grade school</i> | <i>Some high school</i> | <i>High school grad</i> | <i>College</i> |
|--|---------------------|-------------------------|-------------------------|----------------|
| <i>Before seeing film</i> | 45 3% | 47 6% | 49 4% | 50 8% |
| <i>After seeing film</i> | 55 2 | 58 1 | 60 3 | 62 8 |
| Difference | 9 9% | 10 5% | 10 9% | 12 0% |
| Average effectiveness index | 18 1% | 20 1% | 21 5% | 24 4% |

items illustrating both the positive and the negative pattern of relationship to intellectual ability are given below. The first example is based on an item used in the evaluation of the second and third orientation films and concerns men's opinions that "appeasement" of Germany by Britain and France "only made things worse in the long run." The effect of the films in this case is shown below in terms of a comparison between film and control groups in the percentages checking this answer (rather than checking an alternative answer indicating that the appeasement policy was the best thing to do at that time).

TABLE 7

PERCENTAGES INDICATING BELIEF THAT
"APPEASEMENT MADE THINGS WORSE"

| | <i>Grade school men</i> | <i>High school men</i> | <i>College men</i> |
|---------------------------|-------------------------|------------------------|--------------------|
| Per cent in film group | 56% | 73% | 82% |
| Per cent in control group | 53 | 61 | 67 |
| Difference | 3% | 12% | 15% |
| "Effectiveness Index". | 6% | 31% | 45% |

An opposite correlation is illustrated in the effect of the same films on the number of men who thought the Germans would, if victorious, "try to control our country completely and force Americans to work as slaves." In this case a distinct negative correlation between education and effect is observed: the film materially increased the proportion of grade school men expressing this point of view, but had much less effect on men with a high school education and no significant effect on college men.

TABLE 8

PERCENTAGES INDICATING BELIEF THAT GERMANS WOULD ENSLAVE
AMERICANS IF VICTORIOUS

| | <i>Grade school men</i> | <i>High school men</i> | <i>College men</i> |
|----------------------------|-----------------------------|----------------------------|------------------------|
| Per cent for film group | 74% | 66% | 48% |
| Per cent for control group | 54 | 61 | 46 |
| Difference (change) | 20% | 5% | 2% |
| "Effectiveness Index" | 43% | 13% | 4% |

The diversity among different opinion items in the relationship between effects and ability requires some exploration. In the discussion that follows several factors which may contribute to the relationship will be analyzed. Some of these factors would tend to produce a positive correlation between effects and intellectual ability; others would produce negative correlations. As a consequence the overall relationship for an item would be expected to depend on the relative weights of the various factors.

(1) *Learning ability* As in the case of information items so also in the case of opinions we should expect that the men with higher intellectual ability should be able to learn the content of the films more readily than men of lower ability. This should be responsible in part for the positive relationship shown in Table 6. However, if learning ability were the only factor in operation this positive relation would be even more pronounced and none of the individual items would show negative correlation between effects and intellectual ability.

(2) *Acceptance of the material* Regardless of a man's ability to learn a new interpretation, he will not adopt it as his own unless he believes in it. He may learn what the film said but may nevertheless consider what the film said to be incorrect. Hence his own opinion may be unchanged by what he has learned. If some of the

interpretations made by the films were not acceptable to intelligent men but were acceptable to those of lesser intelligence, the factor of learning ability might be sufficiently offset by the factor of acceptance that a negative correlation would be obtained between intellectual ability and particular opinion changes produced by the films.

Nonacceptance by more intelligent men of some of the interpretations provided by the orientation films studied would seem quite likely since the films did not always involve a purely dispassionate presentation of a series of facts but instead were often "slanted" in the direction of particular points of view and particular interpretations of the facts. These interpretations were sometimes very explicitly made by the narrator and sometimes only implied. In either case the complete documentation necessary to establish the validity of an interpretation was not always included, and anyone who recognized this fact and was conscious of the "slant" of the films would be less prone to accept the interpretations uncritically. Hence, there was a priori reason to expect that some opinion changes might be negatively correlated with intellectual ability despite the greater learning ability of the more intelligent.

In order to obtain evidence for or against the operation of the "acceptance" factor in the present data it was desired to utilize a measure of acceptance that was independent of the opinion changes produced by the films. The acceptability of an interpretation would be expected in general to be a function both of motivational factors such as emotional biases or predispositions and of rational analysis of the validity of the interpretation on the basis of available factual information. Of these two factors, the motivational and the rational, we would expect the heaviest weighting of motivational factors among the less intelligent and the heaviest weighting of the rational factors among the more intelligent. Less intelligent individuals would be more apt to accept a new interpretation because it fitted in with their own preconception and wishes regardless of any rational consideration, or they would be more apt to cling with bull-headed stubbornness to their own emotionally determined opinion despite overwhelming rational evidence that is presented against their opinion. The more intelligent on the other hand, with their superior learning ability, their superior ability to draw valid conclusions, their initial access to a greater number of relevant facts, would be more apt to accept or reject an interpretation on the basis of evidence and rational argument.

Ideally, for a complete analysis of the "acceptance factor" as it applies to the present data, one would seek separate measures both

of the motivational factors and of those rational factors that determine the actual validity of a given interpretation on the basis of the available evidence. Conceivably, the motivational, irrational factors determining an opinion might be correlated with intellectual ability such that the less intelligent have an irrational bias in one direction while the more intelligent have an irrational bias in a different direction. No such independent measure of the motivational factor was available in the orientation film studies. However, it seems likely that in the typical case the motivational factors would be much the same throughout the population and the critical correlation would be that between intellectual ability and the extent to which the motivational factors affected an individual's opinion. That is, the more intelligent would be expected to have *fewer* irrational determinants of opinion rather than having *different* irrational determinants as compared with the less intelligent. Emphasis was therefore placed on getting a measure of the rational validity of an interpretation.

It should be noted that if the expected relationship between intelligence, opinion change, and rational validity can be established it would have greater generality than relationships to particular motivational factors. That is, we *always* expect those of greater intellectual ability to be more likely to accept an interpretation if it has greater rational validity, whereas to utilize any possible irrational biases that are held only by the more intelligent we must determine the nature of their bias in each case.

Probably the best way to rate statements as to soundness of opinion or acceptability of the interpretation would be to determine the extent to which adherence to the opinion is correlated with a joint measure of intelligence and amount of knowledge of the relevant facts. Opinions that are positively correlated with such a measure represent "informed" opinions. They are interpretations that are held only for chance or motivational reasons among those who cannot make proper interpretations, but they are progressively more likely to be the view adopted by those in progressively better positions to make the correct inference or the inference most likely correct on the available evidence. The validity of interpretations showing a zero correlation with the joint measure on the other hand is somewhat indeterminate. In such a case it is ambiguous whether there is insufficient evidence for even the more intelligent to make a decision, whether emotional and rational determinants are acting in combinations that cancel or supplement each other's effects, or

exactly what are the determinants of the opinion. Opinions negatively correlated with intelligence and relevant knowledge, however, are definitely "misinformed" opinions. They are opinions that are more likely to be held the less the person is in a position to make a valid inference from factual knowledge.

In the analysis of the orientation film data it was not possible to use a joint measure of intelligence and initial access to relevant facts since repetition of the fact-quiz items was avoided by restricting their inclusion to the "after" questionnaires. In absence of a good joint measure of intelligence and relevant knowledge, a way of approximating this criterion for differentiating acceptable and non-acceptable interpretations is to differentiate the interpretive statements in terms of the correlations between *educational level* and the proportion endorsing each statement. In doing this we assume that the better educated men will on the average both be better informed and be better able, in view of their higher average intelligence, to draw correct conclusions from the information they have available.

Specifically, the assumption is that opinions expressed with increasing frequency by successively higher education groups will on the average be more likely to be correct than interpretations showing a zero or negative correlation with education. In line with this assumption, opinions may be classified according to their initial correlation with education in the control groups and the relationship between education and effects of the film determined separately for each class of opinions. If the opinion is a "valid" interpretation—i.e., if its initial correlation with education is positive—the brighter men should show greater effects because of their superior learning ability. If, on the other hand, the opinion is "invalid"—negatively correlated with education—the better educated men will be less affected than will men with less schooling.

It is apparent that the suggested procedure does not segregate the opinions according to their "validity" independently of motivational factors. Where an opinion is held in the great majority among those of little schooling and held only infrequently among the better educated, we can be fairly sure that some motivational factor is influencing the beliefs of those of little schooling. Similarly, if endorsement of a particular interpretation is positively correlated with education we cannot be sure that this merely reflects the greater validity of the opinion and the greater ability of those who get further in school to arrive at valid interpretations. It could be that such a correlation merely reflects a particular irrational bias among

the better educated which is not shared by the lower intelligence groups.

By itself, differences in the direction of the correlation between opinion and years of schooling achieved indicate differences in overall predisposition—motivational and rational—to accept the interpretation represented by the opinion statement. However, the presumption is that the critical predisposing factor among those of higher education is the tendency to be guided by rational rather than by irrational factors.

In carrying out the "acceptance" analysis, only those opinion questions significantly affected by the films were used in order not to dilute the analysis with chance results. It was not feasible in this analysis to segregate the items according to whether the interpretations had been specifically made in the films or whether they had only been unstated implications of the film material (cf. p. 171f). However, it should be clear that the same factors that apply in the case of film-made interpretations also apply to interpretations not specifically mentioned in the films but which might possibly be made by the audience members as implications of the material presented. In such cases it would still be expected that the acquisition of a new interpretation would be a function of initial access to relevant facts, ability to make valid inferences, relative contribution of emotional and rational considerations, and so forth.

All opinion questions significantly affected by the "Why We Fight" films studied were sorted into three sets on the basis of their correlation between education and initial level of response in the control group. The effect of the film for each of these three sets of items, selected on the basis of *initial* correlation with education, was then computed. The *initial* correlation with education for the three sets of items is shown below in terms of the average frequency of endorsement in the control group at each of four educational levels. The opinion was considered positively correlated if there was a significantly higher endorsement among college men than among grade school men; it was considered negatively correlated if the difference was significant in the opposite direction.

| OPINION ITEM SET (<i>Initial correlation with education</i>) | INITIAL RESPONSE (PER CENT "FAVORABLE" ANSWERS) AT EACH EDUCATION LEVEL | | | |
|---|--|-----------------|-----------------|----------------|
| | <i>Grade school</i> | <i>Some H S</i> | <i>H S grad</i> | <i>College</i> |
| <i>Positive</i> (11 items) | 36.3 | 47.4 | 53.5 | 63.3 |
| <i>Zero</i> (14 items) | 48.1 | 48.9 | 50.0 | 48.6 |
| <i>Negative</i> (6 items) | 55.5 | 45.2 | 40.7 | 34.0 |

When effects of the films in terms of the *effectiveness index* at each educational level were averaged separately for the opinion items in the three sets defined above according to the correlations between education and initial response, the results shown in the following table were obtained.

TABLE 9

AVERAGE EFFECTS OF FILM AT FOUR EDUCATIONAL LEVELS FOR OPINION ITEMS WITH POSITIVE, ZERO, AND NEGATIVE CORRELATIONS BETWEEN EDUCATION AND INITIAL LEVEL OF RESPONSE

| OPINION ITEM GROUPS (<i>Correlation of education and initial level</i>) | AVERAGE EFFECTS OF FILM FOR EDUCATIONAL SUBGROUPS (IN TERMS OF EFFECTIVENESS INDEX) | | | |
|--|--|----------------------|---------------------|----------------|
| | <i>Grade School</i> | <i>Some H. S</i> | <i>H S Grad</i> | <i>College</i> |
| | % | % | % | % |
| 11 items with <i>positive correlation</i> | 19.8 | 21.7 | 24.5 | 34.9 |
| 14 items with <i>zero correlation</i> | 17.4 | 22.1 | 24.4 | 27.4 |
| 6 items with <i>negative correlation</i> | 17.7 | 18.7 | 17.2 | 23.2 |

It can be seen in the table above that there is a definite trend for the effects to increase with education for those items which showed an initial positive correlation with education. Thus, the effectiveness index rises from a value of about 20 per cent for grade school men to a value of about 35 per cent for college men in the case of the eleven positively correlated opinion items. This relationship is similar to but less marked than that shown for information items (cf. p. 153). On the other hand, no consistent rise is found for the six items with negative initial correlation.

More striking results on this point were obtained from the study of the delayed effects (nine weeks after the film showing) of "The Battle of Britain." The analysis is based on items which showed significant effects at this time interval. The results are shown in Figure 5. (A detailed presentation of the results of this study will be found in Chapter 7.)

(3) *Audience-made interpretations from film content.* A distinction was noted earlier between interpretations provided within the film content and interpretations or generalizations made by audience members themselves on the basis of material presented. Therefore, changes in audience opinions as a result of seeing a film involve a third factor in addition to those of learning and acceptance: namely, men's tendency to make interpretations or generalizations not made

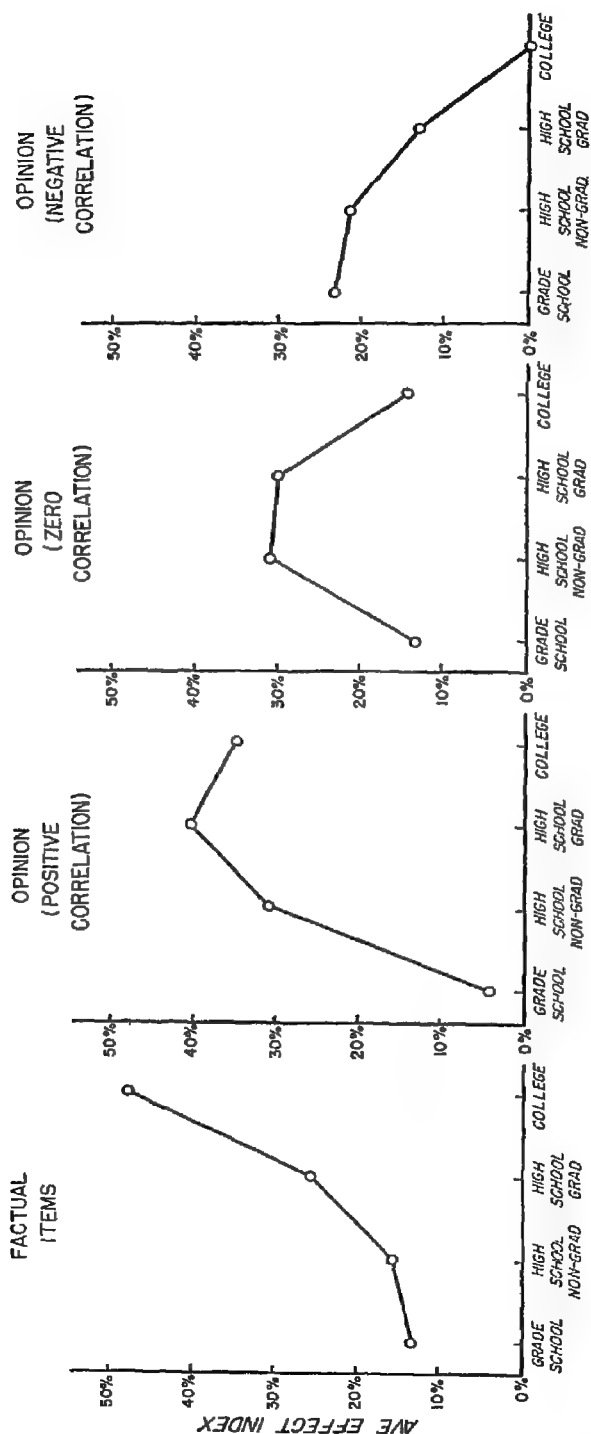


Figure 5 Relationship between educational level and amount of change produced by film for factual items and for opinion items with positive, zero and negative initial correlation with education

explicitly in the film but inferred by the men from material presented by the film

The relation of intelligence to this tendency of audience members to make their own interpretation would depend on the type of interpretation specified. The ability to make *valid* interpretations would in general be an increasing function of increasing intelligence. Thus, for valid interpretations made by the audience, the resultant of the factors of learning and acceptance would be given an additional influence in the direction of a positive correlation with intelligence. This tendency would probably be accentuated in case of valid applications to highly dissimilar areas, where presumably it would be only the men in the higher intelligence levels who would be able to make the application. In a purely factual presentation, the making of valid interpretations by audience members would presumably be the only way in which desired opinion changes would be produced. If acceptance were not a factor in determining such effects, the average correlation between intellectual ability and effects would be *greater* for opinions than for information because of the added influence of greater generalizing ability for the more intelligent. Thus, the average curves given above for opinion changes in the case of the "Why We Fight" films might not be typical of results that would be obtained from films employing a purely factual presentation of such a character that any opinion changes effected would depend entirely on interpretations made by members of the audience.

Invalid applications or generalizations from film material presented would, on the other hand, be expected to be *less* frequently made by the more intelligent men than by the unintelligent, and this tendency might also be accentuated for the areas most dissimilar to those covered by the film. However, with a wide range of intelligence, invalid interpretations might in some cases be made more frequently by those of intermediate intelligence than by the least intelligent group, who might in some instances be unable to make any generalizations whatever, even if they assimilated the relevant facts. For this reason, a reversal might be observed for the curve of intelligence versus effect of film on opinion statements representing invalid applications of the material presented.

It was not feasible in the present film studies to carry out a systematic investigation of the kinds of effects just hypothesized because it was found impossible to obtain consistent judgments for differentiating opinion items as to whether the interpretations they

represented were made by the film or had to be inferred by the audience. Thus there was no clear-cut set of opinion items that could be used for the analysis of "audience-made" interpretations. However, one opinion item on which significant effects were obtained had been deliberately designed by the experimenters for the purpose of testing the extent to which men generalized invalidly beyond the film content in their interpretations. This was the agree-disagree statement, "The English did as good a job as possible of holding out against the Japs at Singapore," included in the questionnaires used to test effects of "The Battle of Britain." Nothing was mentioned in the film about British resistance at Singapore, and although the determined resistance of the British in defending England during the Blitz was played up, there was no direct interpretation by the film to suggest that such behavior was an invariable characteristic of the British. The effects of the film (combined results for the two camps where it was studied) are shown in the table below

TABLE 10

PERCENTAGES AT EACH EDUCATIONAL LEVEL WHO AGREED WITH STATEMENT, "THE ENGLISH DID AS GOOD A JOB AS POSSIBLE OF HOLDING OUT AGAINST THE JAPS AT SINGAPORE."

| | <i>Grade School</i> | <i>Some H S.</i> | <i>H. S Grad</i> | <i>College</i> |
|-----------------------|---------------------|------------------|------------------|----------------|
| Control group: | 68% | 52% | 43% | 28% |
| Film group, | 68 | 62 | 48 | 32 |
| Difference | 0% | 10% | 5% | 4% |
| "Effectiveness index" | 0% | 21% | 9% | 6% |

It is seen that the effects of the film on this audience-made interpretation are less for the higher education groups than for the "some high school" group. But the effect is also absent in the case of the lowest education group, suggesting the "curvilinear" type of relationship mentioned above as a possibility with a wide range of intellectual ability.

(4) *Stability of opinion.* A fourth factor to consider in analyzing the relationship between intellectual ability and magnitude of change in opinion is the relative stability of opinions in the various educational subgroups. For example, the fact that brighter men showed little superiority to the less bright in terms of opinion change but were considerably superior in learning factual material may be

due in part to a greater stability of opinion among the brighter men. Greater stability might be expected among brighter men on the assumption that they already have considered relevant facts and have a definite opinion on the subject. The less intelligent men, on the other hand, might be more likely never to have considered the subject and to have no real opinion one way or the other. Thus the film might not alter the well crystallized opinions of the brighter men, but would provide the less bright with an opinion for the first time.

The simplest method of analysis is to compare the per cent of men in each educational group who give the same answers on successive administrations of the questionnaire. Data were available from the "Battle of Britain" study to determine consistency at two time intervals—one for a period of two weeks and the other of nine weeks. To determine stability of opinion independent of the effect of the films the control groups were used in the analysis. The percentages of the men in each educational group who gave the same answer to the opinion items after a short (2 week) and a long (9 week) time interval are depicted in Figure 6.

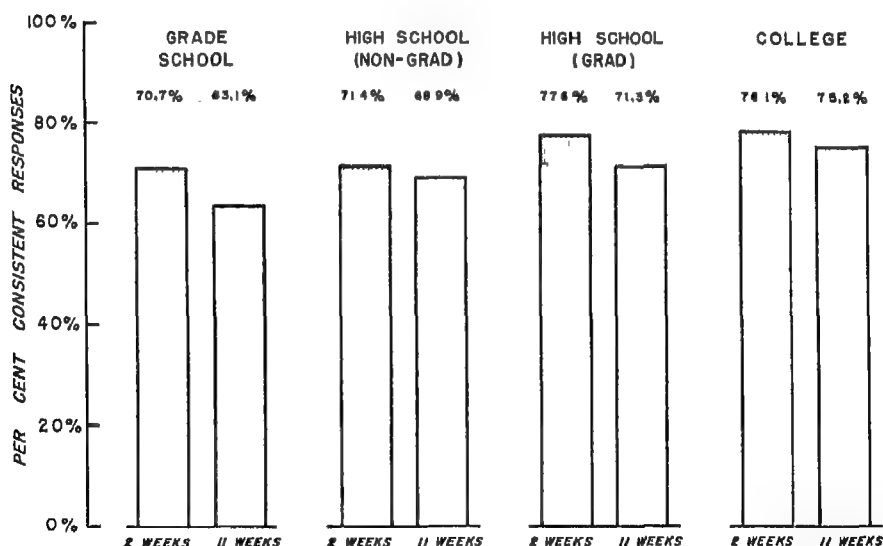


Figure 6 Stability of opinion among men of various educational levels.

These results indicate that at both the two-week and the nine-week interval there is a slight positive correlation between educa-

tional level and amount of consistency.⁵ This trend held for 16 of the 21 opinion items used in the questionnaire. The correlation is primarily noteworthy however because of the fact that it is not more marked, as compared with the consistency shown by the more intelligent men, the degree of consistency for those of lower ability is surprisingly good.

The other interesting point brought out by the chart is the comparative stability of opinion during the nine-week as compared with that during the two-week interval. Obtained changes in responses are due not only to real changes in opinion but also due to the unreliability of the measuring instrument. It seems reasonable to assume that this unreliability is the same for the two time intervals and consequently that the decrease in consistency at the long-time interval as compared with that at the short-time interval is indicative of real change in opinion. The results indicate however that these variations in consistency are small and not substantially different for the various educational groups.

The present results then show surprisingly little difference between the high and low intelligence groups in the consistency with which they hold their opinions over time intervals varying from two weeks to over two months.

Several factors have been discussed as bearing on the relationship of intellectual ability to opinion changes. The factor emerging most clearly from the present data is that of "acceptance." It is apparent from the results obtained that in the opinion areas studied some items of opinion are initially subscribed to more frequently by the brighter men than by the less intelligent, and that for these items film effects also tend to be greater among the more intelligent men. But other opinions show the reverse correlation with intellectual ability, and for such items the positive correlation between intelligence and amount of change produced by the film is not found. These findings may be interpreted by describing the initial correlation between intelligence and opinion held as a measure of "validity" of opinion and advancing the proposition that valid interpretations

⁵ The amount of consistency is of course affected by initial level of opinion (i.e., opinions which are held by a high proportion of the men are more limited in the amount of change than those held by a smaller proportion of the men). In the case of the present study, however, the initial level of opinion was substantially the same for the different educational groups. Furthermore, an analysis of consistency for the high and low education groups on items of varying initial frequency showed that at each frequency level there was a constant superiority of the high education group in consistency.

will be accepted more readily by the intelligent but invalid ones more readily by the less intelligent than by the more intelligent.

Of the other two factors considered, that of the presumed greater ability of the more intelligent to draw conclusions from evidence presented does not emerge as clearly differentiable in the present data from the factor of acceptance. Analysis in terms of the third factor, stability of opinion, suggests that groups of differing ability are not sufficiently different in amount of stability exhibited to account for the tendency of some items to show a zero or negative correlation with education.

PART II

STUDIES EMPLOYING CONTROLLED VARIATION

INTRODUCTION TO PART II

IN THE general introduction to this volume a distinction was made between two major classes of film research. The distinction was between purely evaluative studies on the one hand, and studies employing controlled variation on the other. The studies reported thus far in this volume were designed primarily for evaluative purposes. In such studies the generality of results is limited because they are tied to specific film content, so that statements of effects are in terms of the effect of a complex presentation in which many factors help determine the result but the contribution of any one factor is not singled out. A partial exception to this lies in the analyses, reported in Chapter 6, of the relation of intellectual ability to the effects of films.

In the studies reported in the three following chapters an attempt is made to obtain findings having a greater degree of generalizability. The method used is that of systematically varying certain specified factors while other factors are controlled. This makes it possible to determine the effectiveness of the particular factors varied. As pointed out in Chapter 1, one's confidence in the probable validity of generalized findings about the effect of a factor is increased by having selected for study factors which are critical in terms of theoretical formulation. The reason for this lies in part in the fact that the underlying theoretical basis is usually already grounded in a series of observations in varied contexts so that there is reason in advance to expect that the factor studied will be important in a variety of situations rather than specific to the particular conditions studied.

The studies to be reported in Chapters 7, 8, and 9 furnish examples of studies in which the method of controlled variation was used and where, in addition, the factors varied were selected partly in terms of theoretical considerations. They thus approach more nearly than do the evaluative studies previously described the kind of re-

search that is required as a basis for developing a body of principles which will permit valid generalizations concerning the influence of various factors in determining film effectiveness which are more independent of specific content.

The desirable property of generalizability of findings does not, of course, follow automatically simply because the effects of varying a specific factor of theoretical interest have been carefully studied in a particular context. As suggested in Chapter 1, it is unlikely that with the complexity of factors operating in film communication there would be many empirical generalizations which would hold without qualification for all educational films, all audiences, and all conditions of utilization. Rather, variables would be expected to interact in such a way that the most exact and most useful empirical generalizations would emerge as a series of principles rather than a single principle. Such a series of principles would designate how the effects of one variable are modified by other important variables operating in the situation. For this reason in the studies reported in the following chapters several important variable factors are studied in combination instead of confining the experimental observations to the effect of a single factor. Three studies are described.

Chapter 7 deals with the *effects of a film presentation as a function of lapse of time*. The film used was "The Battle of Britain," which was used also in a purely evaluative study of the film's immediate effects, described in Chapter 2. The analysis described in Chapter 7 represents an extension of the evaluation to include effects of the film after a lapse of time. But the new data, comparing effects obtained at two time intervals, also have general scientific rather than merely evaluative implications. Thus conclusions as to the relative magnitude of effects of a film after a long as compared with a short interval of time would be expected to have some intrinsic generalizability. The factor of lapse of time can in a sense be considered an external variable, "manipulated" experimentally by controlling lapse of time before application of the measuring instrument.

In the experiment reported in Chapter 8, the principal variables analyzed were "content" variables. In such studies, where the effects of *different kinds of presentations* are studied, it is usually necessary to have two or more controlled versions of the presentation with the same general objective. In the study reported in Chapter 8, alternative ways of presenting a particular orientation "message" were compared in effectiveness. Transcriptions instead of films were used to present the material, mainly because of the

greater ease of preparing alternative versions. The experimental analysis reported in Chapter 8 deals with variations in the kind of argument presented, and studies the effect of presenting "both sides" versus presenting only "one side" in changing opinions on a controversial subject. The analysis is made in relation to the population variable of initial opinion on the topic presented by the transcription.

Chapter 9 reports a study of the effect on factual learning of variations in the content of a film strip. The difference involved the inclusion or noninclusion of a section of the film strip during which the audience rehearsed the material presented. In terms of the classification of kinds of variables as given in Chapter 1, this difference in the construction of the film strip, allowing for rehearsal, is a "content" or "film" variable from the standpoint of the film producer. However, it could also be considered as an "external" or procedural variable by the utilizer of film products. An additional aspect of this experiment was an analysis in terms of a second "external" variable—motivation in relation to the variation in the film strip's content. The motivational factor is classified as an additional "external" variable in this instance because the variation was explicitly introduced by manipulation of the procedures used.

In each of these three studies the results are analyzed as a function of the additional population variable of general intelligence, as measured either by the level of schooling that the men in the audience had attained, or by their AGCT scores. Thus in these studies the joint effects of experimentally manipulated variables and a statistically controlled variable are studied in combination.

*SHORT-TIME AND LONG-TIME EFFECTS
OF AN ORIENTATION FILM*

.....

I N CONNECTION with the use of the orientation films, the question arose as to how well the effects of the films were retained over a long period of time. The practical significance of this question lay in judging the need for later supplementary material covering the same ground as the films. In the experiments with orientation films presented earlier, the effects were determined at time intervals ranging from four to seven days after the film showings. In the present study, effects were determined at two time intervals after the film showing, one at five days and another at nine weeks. The primary objective of the study was to discover the extent to which the "short-time" (five-day) effects endure, as evidenced by the extent to which they were still present after a nine-week interval had elapsed.

The phrasing of the practical question to be answered by the study carries the implication that a decrement in effects is to be expected after a lapse of time. A more general question is to ask what is the influence of passage of time on the effects produced by the film. From this standpoint one need not anticipate only decrements with time; rather, in some cases the effect of time may be to enhance the initial effects of the film. Thus, some of the effects of the film may be "sleepers" that do not occur immediately but require a lapse of time before the full effect is evidenced. It should be realized, of course, that in making a controlled-variation study of the influence of time, it is not time per se that is the variable under study but rather the events which occur during the lapse of time.

The film used in this study was "The Battle of Britain." This film was chosen partly because its initial effects, as determined from a previous study, were relatively large, providing a better base for measuring retention than would be the case with a film having small initial effects. The sample used in this study to determine the short-term effects of the film has already been included as part of

the total sample in the presentation of the main effects of "The Battle of Britain" in Chapter 2.

The before-after experimental design was used. The "before" questionnaire was given to ten Infantry Replacement Training companies during the first week of the study (April 1943). During the second week, the film was shown to five of the ten companies. The other five companies were controls and did not see the film during the study. Five days after the film showings, three of the film companies and three of the control companies were given the "after" questionnaire. These six companies were used to determine the *short-time* effects of the film. The remaining four companies (two controls and two experimental) were used nine weeks after the film showings to determine the *long-time* effects of the film. A nine-week interval was used because it was the longest period during which the companies would retain the same personnel. The experimental design is outlined below.

| WEEK OF STUDY | SHORT-TIME GROUPS | | LONG-TIME GROUPS | |
|----------------------|--------------------------------------|---------------------------------|--------------------------------------|---------------------------------|
| | <i>Experimental</i> (3 companies) | <i>Control</i> (3 companies) | <i>Experimental</i> (2 companies) | <i>Control</i> (2 companies) |
| <i>First week</i> | "Before" questionnaire | "Before" questionnaire | "Before" questionnaire | "Before" questionnaire |
| <i>Second week</i> | Film showing | _____ | Film showing | _____ |
| <i>Third week</i> | "After" questionnaire | "After" questionnaire | _____ | _____ |
| <i>Eleventh week</i> | _____ | _____ | "After" questionnaire | "After" questionnaire |

It will be observed in the experimental design that the same sample of men was not used at the two different times after the film. A design involving a short-time and long-time measure on the same men was avoided on the grounds that the first "after" measure might affect the results obtained on the second. It will also be observed that more men were used in the short-time measurement of effects than the long-time measurement. The reason for this was that an incidental purpose of the study was to make a more detailed analysis of the short-time effects of the film than was possible with the after-only procedure that had been used at the first camp at which "The Battle of Britain" had been studied. To get a sizable number of cases for this analysis, the greater number of men were concentrated in the short-time measurement.

After the equating of the film and control groups, the resultant samples were 900 for the short-time effects (450 film and 450 control) and 500 for the long-time effects (250 film and 250 control).

Results with Fact-Quiz Items

The results for the ten fact-quiz items (which were included only in the "after" questionnaire) are shown in Table 1. The items in the table are arranged in descending order of magnitude of *short-time* effect.

It can be seen in Table 1 that all of the items showed a decrement with passage of time except some of the items with very small short-time effects. The long-time mean score on the fact quiz was slightly less than half as great as that obtained in the short-time measurement. Thus retention was about 50 per cent after nine weeks. If the results in Table 1 are recomputed excluding the last three items, where the obtained "effects" are of questionable reliability, the means are 29.7 per cent and 12.9 per cent for short-time and long-time effects, respectively, giving a retention value of 12.9 divided by 29.7 or 43 per cent.

Results with Opinion Items

In contrast with the foregoing findings for fact-quiz items, the results for opinion items did not show an overall decrement during the interval of nine weeks. Instead, some items showed the expected decrement while others showed reliable increments, with a mean effect that was slightly greater for the long-time measurement than for the short-time. For the entire group of opinion items used in the after questionnaire, the range was from a decrement of -17% to an increment of $+14\%$, with a mean of $+1.9\%$.¹ The variance of the differences between the short-time and the long-time "effects" was 40.3% . By contrast, when the groups were compared before the film showing, the range of the second-order differences was only from -7% to $+7\%$, with a variance of 14.6% .

Comparison of Short-Time and Long-Time Effects on Individual Opinion Items Showing a Reliable Effect at Either Time Interval

The foregoing comparisons were based upon all opinion items included in the questionnaire and therefore included many items for which no reliable effect of the film was demonstrated. Of special

¹ This included all opinion items except those involving ranking of enemy and allied strength and two questions about branch of service that could not be scored individually.

TABLE 1

 SHORT-TIME AND LONG-TIME EFFECTS OF "THE BATTLE OF BRITAIN" ON
 FACT-QUIZ QUESTIONS

| FACT-QUIZ ITEM | SHORT-TIME | | | LONG-TIME | | | DIFFERENCE (Long-time minus short-time) |
|--|------------|-------|-------|-----------|-------|-------|--|
| | Control | Film | Diff. | Control | Film | Diff. | |
| 1. RAF not destroyed on ground because kept planes at edge of fields | 23% | 80% | 57% | 21% | 53% | 32% | -25% |
| 2. First targets of Luftwaffe were ports and ships | 13 | 58 | 45 | 13 | 20 | 7 | -38 |
| 3. Luftwaffe ten times as large as the RAF | 24 | 56 | 32 | 19 | 33 | 14 | -18 |
| 4. Nazi plan was to destroy RAF, then invade England | 30 | 58 | 28 | 26 | 40 | 14 | -14 |
| 5. British Navy could not operate in channel because of danger of air attacks | 41 | 60 | 19 | 37 | 44 | 7 | -12 |
| 6. After fall of France British could equip only one modern division | 5 | 21 | 16 | 3 | 8 | 5 | -11 |
| 7. Famous statement, "Never . . . was so much owed by so many to so few" referred to the RAF | 23 | 34 | 11 | 17 | 28 | 11 | 0 |
| 8. Goering the head of the German Air Force | 58 | 65 | 7 | 51 | 58 | 7 | 0 |
| 9. "Luftwaffe" the name of the German Air Force | 66 | 72 | 6 | 65 | 70 | 5 | -1 |
| 10. Germans lost about 2000 planes in the Battle of Britain | 49 | 54 | 5 | 49 | 58 | 9 | +4 |
| Mean | 33.2% | 55.8% | 22.6% | 30.1% | 41.2% | 11.1% | -11.5% |

TABLE 2

SHORT-TIME AND LONG-TIME EFFECTS OF "THE BATTLE OF BRITAIN" ON
SIGNIFICANTLY AFFECTED OPINION QUESTIONS

| <i>Content of opinion item</i> | SHORT-TIME | | | LONG-TIME | | | DIFFERENCE (<i>Long-time</i> <i>minus</i> <i>short-time</i>) |
|---|----------------|-------------|-------------|----------------|-------------|-------------|---|
| | <i>Control</i> | <i>Film</i> | <i>Diff</i> | <i>Control</i> | <i>Film</i> | <i>Diff</i> | |
| 1. RAF gave Nazis first real defeat | 21% | 45% | 24% | 20% | 27% | 7% | -17% |
| 2. RAF most important in preventing German conquest of England | 54 | 78 | 24 | 46 | 69 | 23 | -1 |
| 3. Nazi invasion attempt failed because of determined resistance of British | 51 | 71 | 20 | 54 | 68 | 14 | -6 |
| 4. Battle of Britain was a real invasion attempt | 32 | 46 | 14 | 30 | 40 | 10 | -4 |
| 5. England's refusal to surrender saved U.S. cities from bombing | 62 | 74 | 12 | 67 | 74 | 7 | -5 |
| 6. RAF has done about the best job of fighting in the war | 49 | 60 | 11 | 42 | 45 | 3 | -8 |
| 7. British more democratic than before Battle of Britain | 55 | 65 | 10 | 59 | 62 | 3 | -7 |
| 8. American workers in war plants should not work longer hours | 48 | 52 | 4 | 42 | 54 | 12 | 8 |
| 9. America and Allies can still lose the war (disagree) | 34 | 37 | 3 | 35 | 48 | 13 | 10 |
| 10. We would be fighting on American soil if Britain had not held off Nazis | 52 | 55 | 3 | 50 | 62 | 12 | 9 |
| 11. British are doing their fair share of the fighting | 71 | 73 | 2 | 61 | 77 | 16 | 14 |
| 12. Better just to defend U.S. rather than going overseas to fight | 83 | 84 | 1 | 79 | 90 | 11 | 10 |

TABLE 2 (Continued)

| <i>Content of opinion item</i> | SHORT-TIME | | | LONG-TIME | | | DIFFERENCE (<i>Long-time</i> minus <i>short-time</i>) |
|---|----------------|-------------|-------------|----------------|-------------|-------------|--|
| | <i>Control</i> | <i>Film</i> | <i>Diff</i> | <i>Control</i> | <i>Film</i> | <i>Diff</i> | |
| 13 If England had been conquered the U.S. would have been attacked next | 23% | 24% | 1% | 22% | 32% | 10% | 9% |
| 14. The war will probably end in less than one year | 11 | 10 | -1 | 12 | 22 | 10 | 11 |
| 15. The British not to blame for America's having to get into the war | 56 | 54 | -2 | 44 | 55 | 11 | 13 |
| Mean | 46 8% | 55 2% | 8 4% | 44 2% | 55 0% | 10 8% | 2 4% |

interest are the items which individually exhibited reliable effects of the film. In Table 2 the results at the two time intervals are shown for the 15 opinion items for which a reliable effect was obtained at either or both of the two time intervals

The criterion of reliability used for the selection of items in Table 2 required a 10 per cent difference between film and control after the film showing. In terms of the empirical distributions of film-minus-control differences before the film, a difference of 10 per cent was beyond the 1 per cent level of confidence at either time interval (The standard deviation of the distributions of "before" differences between film and control were 2.7 per cent and 3.5 per cent, respectively, for the short-time and long-time groups.) In the table the content is indicated for each of the 15 items, as well as the film and control percentages for each item at each time interval. The items are arranged in descending order of magnitude of *short-time* effect.

As can be seen from Table 2 the average for the 15 items was about the same for short-time and long-time effects, with a slight advantage (2.4 per cent) in favor of the long-time effects. However, Table 2 brings out clearly the fact that the near equality of the averages is a balance of some effects that were larger in the short-time measurement and others that were larger in the long-time measurement rather than approximate equality of individual effects

at the two time intervals. This trend is perhaps somewhat exaggerated in Table 2 owing to the selection of effects that met the criterion of 10 per cent at either time interval. Thus borderline instances that just barely met the criterion at only one of the time intervals would be expected to regress somewhat in a replication of the experiment.

These findings are of considerable significance both from the standpoint of methodology of research on educational films and from the standpoint of theory as to the effects of educational programs on attitudes. Methodologically, they raise the problem as to the point in time at which effects of a film or other educational device are to be measured. From the standpoint of theory they raise the possibility of "sleeper" effects in the case of opinions and the implications of such effects for theory of attitude or opinion changes. From the standpoint either of educational film research or of the use of educational films it would be very desirable to know how generally this finding holds for documentary films of this type and also to know what factors determine whether the effects will show a loss or a gain with time. Unfortunately, studies of long-time effects were not made on any of the other orientation films, so no evidence can be given as to the generality of the results.

An analogy may be drawn between the findings reported here and the finding in studies of retention that "substance" is better retained than verbatim learning.² Thus the general ideas in a passage of verbal material are retained with little loss over periods in which memory for the actual wording has dropped markedly. In the present study retention for opinions—which correspond to the substance—averaged better than 100 per cent whereas memory for detailed facts dropped to only half of its initial value.

However, this analogy is somewhat superficial in view of the fact that the average for opinions was a mixture of some gains and some losses on particular items of "substance" (if opinions can be regarded as "substance"). In this connection it may be pointed out that another familiar phenomenon in learning studies—the phenomenon of "reminiscence," in which more rather than less of the original content is recalled after a lapse of time—is more frequently found in the case of substance material than in the case of detailed verbal

² Cofer, C. N. "A Comparison of Logical and Verbatim Learning of Prose Passages of Different Lengths" *Amer. J. Psychol.*, 1941, 54, 1-20

content.³ Thus the present results may be regarded as a mixture of the greater retention of general ideas plus "reminiscence" for part of the material.

One hypothesis as to the source of the "sleeper" effects involving a purely methodological artifact was checked but was not supported by the data. This hypothesis was that the before-after procedure may cause a "consistency reaction" which would occur when the two questionnaires are close together in time but which would not be present for two questionnaires separated by an interval as long as eleven weeks. The possibility of a "consistency reaction" is discussed in Appendix C along with other methodological aspects of the before-after procedure. The effect of the "consistency reaction," if present, would be a tendency for the respondent, having given a particular answer to a question on one occasion, to give the same answer when questioned in a similar context a short time later. Hence the true magnitude of the change effected by the film would not be revealed at the short-time interval. Since some of the questions in the present study were asked only in the "after" questionnaire and others both before and after, it was possible to check whether after-only questions show the normal forgetting decrement with time and only the before-after questions show an increment. This finding would be expected if the "consistency reaction" were reduced where an 11-week interval is allowed between before and after tests.

However, no significant relation was found between whether the question was an after-only or a before-after question and whether it showed a decrement or an increment with time. In Table 2 the after-only questions were numbers 2, 7, 8, 11, 14, and 15. Of these six after-only items, it can be seen that two showed a decrement and four showed an increment in effects as a function of time. Of the remaining nine questions, asked both before and after, five showed a decrement and four showed an increment. Thus while the hypothetical "consistency reaction" may have functioned to some extent to reduce the size of the decrement, the data do not at all support it as the factor responsible for the delayed or augmented effects. As can be seen in Table 3 the results are in the opposite direction from the prediction of the consistency hypothesis. (The apparent difference in retention of the after-only items is not significant.)

³ English, H. B., Wellborn, E. L., and Killian, C. D. "Studies in Substance Memorization." *J. gen. Psychol.*, 1934, 11, 233-60. See also Buxton, C. E. "'Reminiscence' in the Studies of Professor English and His Associates." *Psychol. Rev.*, 1942, 49, 494-504.

TABLE 3

MEAN EFFECT (FILM % MINUS CONTROL %)

| | <i>Short-time</i> | <i>Long-time</i> |
|-----------------------------|-------------------|------------------|
| For six after-only items | 6.2% | 12.5% |
| For nine before-after items | 9.9 | 9.7 |

Relation of the Effects to Educational Level

Further information about the nature of the effects is obtained from the analysis of short-time and long-time changes among men of differing education. Analysis by education is particularly significant for the reason given in Chapter 6—namely, that opinions positively correlated with education may be considered as “informed” opinions—as “more valid” interpretations of the available facts.

Using the correlation of initial responses with education as the criterion of “validity” of opinion three sets of opinion items may be distinguished: (1) those with *positive* correlation, (2) those with *no* correlation, (3) those with *negative* correlation. A fourth kind of item may also be considered—the factual items—on which positive correlation is also generally present.

For purposes of the separate analysis of these different kinds of items the decision as to whether positive or negative correlation with education was present was based on whether the lowest and highest education groups differed significantly in a positive or negative direction. If this difference was not significant the correlation was considered “zero.” In Figure 1, results are presented for the four sets of items, showing the average *initial level* of opinion in different education groups, i.e., the correlation of the opinion with education, and showing the *changes* in opinion as a function of education in both the short-time group and the long-time group. The changes due to the film are presented in terms of the “effectiveness index” to take account of differences in initial level among the different educational groups.

Two interesting relationships are revealed in Figure 1. The first is that responses initially positively correlated with education show effects of the film that are positively correlated with education, whereas responses with no significant initial correlation or with negative correlation tend to show effects that are either poorly correlated or negatively correlated with education. This is in accord

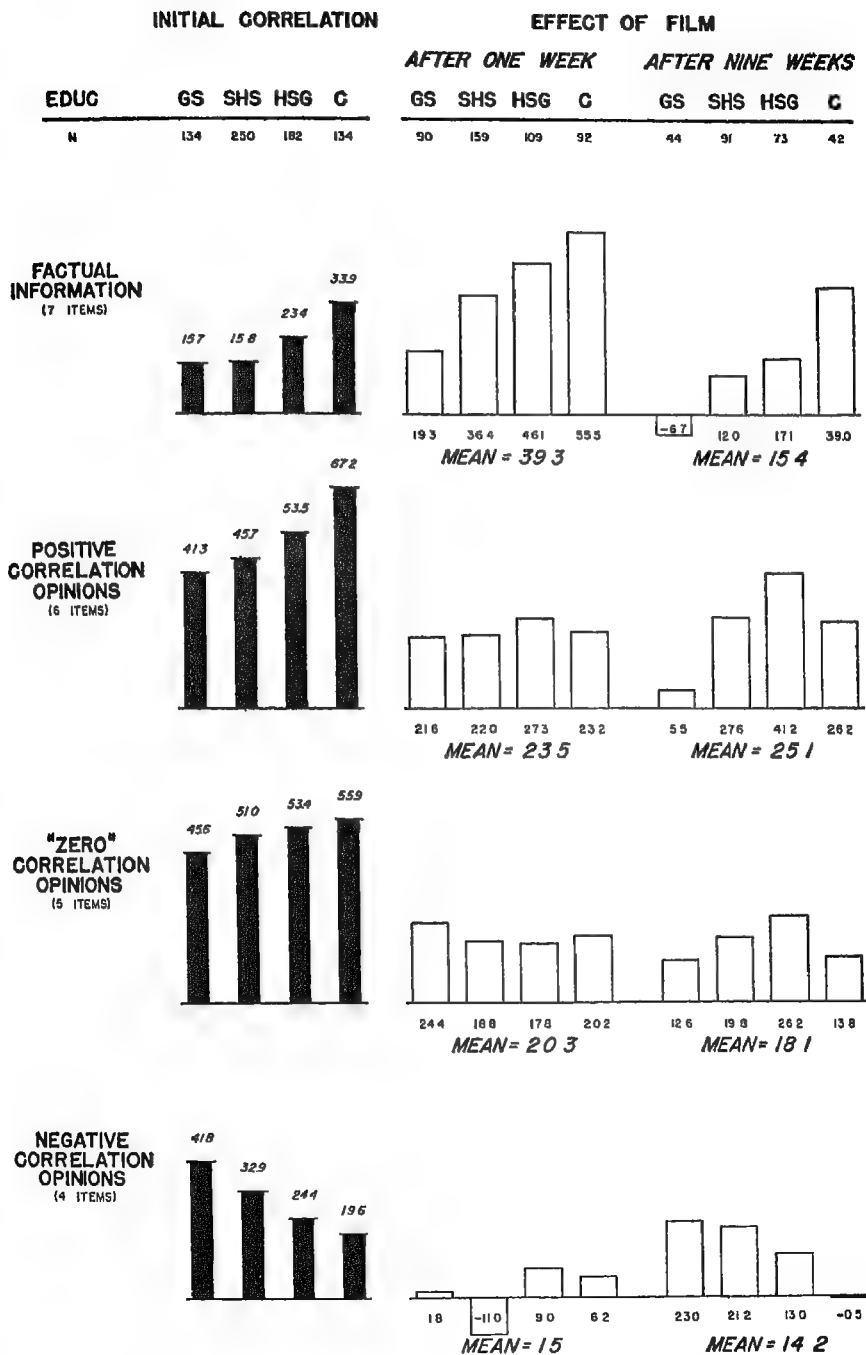


Figure 1 Mean initial levels and effectiveness indices for four sets of items for each of four education groups

with the findings reported in Chapter 6, and it will be noted that the relationship is present at both time intervals. The second relationship revealed by the figure is that the more negatively correlated the response with education initially the more likely it is to show a "sleeper" effect (a gain with lapse of time). This is most easily seen in the mean effects for the group as a whole, in which a marked decrement with time is obtained for fact-quiz items, while a definite gain with time is found for opinion items having a significant negative correlation initially. The increments for initially negatively correlated items are particularly notable among men with less education.

These observations suggest that perhaps the "sleeper" effects are found only for "uninformed" opinions and mainly among the less well educated. But a separate analysis of those items showing gains with time—i.e., items 8 through 15 in Table 2—reveals that some are positively and some negatively correlated with education initially and that the distribution of gains with time among the different educational groups depends on the sign of this initial correlation. This analysis is shown in Table 4 in which the eight items are subdivided into two groups of four each in which the curve of initial level with education was ascending (positively correlated) for one set of four and descending (negatively correlated) for the other set of four. These correspond to "informed" and "uninformed" opinions, respectively, in terms of the initial opinions of the different educational groups.

Here it is apparent that the "sleeper" effects were confined neither to uninformed opinions nor to the less well educated. Gains were obtained among all educational groups, but the magnitude of the gains with time was larger among the better educated for items initially positively correlated with education and larger for the less well educated for items initially negatively correlated with education. In other words, for all items on which increments were found, the "valid" interpretations or "informed" opinions showed greatest increments with time among the better educated, whereas the "invalid" interpretations or "uninformed opinions" showed greater increments with time among the less well educated.

These results suggest the hypothesis that "sleeper" effects are obtained among individuals already *predisposed* to accept an opinion but who have not yet accepted it. According to this hypothesis, a person soon "forgets" the ideas he has learned which are not consonant with his predispositions, but that he retains without loss or

even with an increment those ideas consonant with his predispositions. Thus if an opinion is positively correlated with education, we can surmise that the better educated are predisposed to accept it—the factors leading to most better educated men's accepting the opinion should also be at work as predisposing factors affecting those better educated men who do not yet accept it. Conversely, an opinion that is negatively correlated with education indicates that the less well educated are predisposed to accept the opinion.

TABLE 4

SHORT-TIME AND LONG-TIME MEAN EFFECTIVENESS INDEX OF ITEMS SHOWING GAINS WITH TIME, BY EDUCATION, FOR THE FOUR "INFORMED" AND THE FOUR "UNINFORMED" OPINIONS

| <i>Education</i> | SHORT-TIME | | LONG-TIME | | DIFFERENCE | |
|--|---|---|---|---|---|------|
| | <i>Av</i> <i>initial</i> <i>level</i> (Percentage) | <i>Av</i> <i>effectiveness</i> <i>index</i> | <i>Av</i> <i>initial</i> <i>level</i> (Percentage) | <i>Av</i> <i>effectiveness</i> <i>index</i> | <i>Long-time</i> <i>minus</i> <i>short-time</i> <i>effectiveness</i> <i>index</i> | |
| <i>"Informed"</i> <i>Opinions</i> | GS | 52.5 | 17.9 | 51.2 | 16.0 | -1.9 |
| | SHS | 63.0 | 3.2 | 51.8 | 33.6 | 30.4 |
| | HS | 68.5 | 0.0 | 60.5 | 31.2 | 31.2 |
| | Coll | 73.8 | -5.8 | 64.2 | 38.6 | 44.4 |
| <i>"Uninformed"</i> <i>Opinions</i> | GS | 43.0 | 0.9 | 40.5 | 24.8 | 23.9 |
| | SHS | 34.0 | -8.2 | 31.8 | 20.5 | 28.7 |
| | HS | 23.5 | 8.8 | 25.2 | 12.8 | 4.0 |
| | Coll. | 17.8 | 5.1 | 21.5 | 7.0 | 1.9 |

Of course in most cases an opinion positively correlated with education will have its counterpart that is negatively correlated. Thus, since belief that Britain was to blame for our entering the war was negatively correlated with education, belief that Britain was *not* to blame was positively correlated with education. In most cases, therefore, of a sizable correlation of opinion with education, we can say that the better educated are predisposed in one direction and the less well educated are predisposed in the other.

It is worth pointing out that education is only one of the possible indices of predisposition. Ideally one would get a multiple regression based on all the important factors associated with a particular opinion. On the basis of a *combination* of predisposing factors one could then more exactly segregate the total population into fairly homogeneous subgroups that should be predisposed to think alike because of the common influences that mold opinion. Such a segregation was not feasible in the present instance but an analysis to test the implication of the predisposition hypothesis was made using education as the basis for subdividing the sample into subsamples which were homogeneous with respect to this one variable and all of its associated predisposing factors. In view of the findings reported at the outset of Chapter 6, it seems likely that education would be the best *single* variable to use in analyzing the present data.

The logic of the analysis to test the predisposition hypothesis was as follows: the initial trend of opinion was examined for each of the four educational subgroups on each of the 15 opinion items that were significantly affected (shown in Table 2). Where an opinion is positively correlated with education we expect the opinion generally to be in the minority among the less well educated and in the majority among the well educated, and conversely for negatively correlated opinions. In line with this, the degree of predisposition of a particular educational subgroup with respect to a particular opinion was regarded as being a function of the degree to which that opinion was held by the members of that subgroup. Effects were therefore analyzed for each subgroup, on each of the 15 opinions, as a function of the initial degree of acceptance indicated by the control findings.

Specifically, the analysis consisted of breaking down the control-group results into sixty (15×4) subpercentages, one each for the responses of each of the four educational groups on each of the 15 items in Table 2. The effects of the film, short-time and long-time, were then analyzed as a function of the degree of initial acceptance—defined as percentage choosing the response in each of the 60 initial-acceptance levels in the total array. According to the hypothesis, an opinion which is very infrequent in a particular educational subgroup is one which that group is predisposed *against* whereas an opinion held by the great majority of the subgroup is one *toward* which they are predisposed. Accordingly, opinions should show decrements or increments corresponding to the direction of the pre-

disposition during the lapsed time after seeing the film. The total array of 60 initial percentages, derived from the control findings of the four educational groups' responses to the 15 items, can be ranked from the highest percentages—indicating the opinions initially most strongly held by a subgroup—to the lowest percentages—indicating the opinion initially most strongly opposed by any of the subgroups. According to the hypothesis there should be, corresponding to this ranking of "predisposition," a trend in effects such that increments in effects with lapse of time are found associated with items ranking high in initial acceptance and decrements are found associated with items ranking low in initial acceptance.

The results in general confirmed the hypothesis. A trend toward being affected by the film if predisposed did not show up clearly in the short-time results, but it was quite apparent in the long-time results. However, even this latter trend was accompanied by a great deal of variability. The results are shown in Table 5 with some of the variability smoothed out to show the trend by combining the 60 separate effects to make six class intervals of differing initial acceptance. The method of combination was to arrange in rank order the 60 separate initial-acceptance levels for combined short-time and long-time control groups. The ranks therefore ranged from 1 to 60, with the rank of 1 indicating the highest initial per cent obtained for the two controls combined and 60 indicating the lowest. The data were then simply combined in successive sixths. The ten combinations in each sixth are the same for both the short-time and long-time samples although the mean acceptance-level was necessarily somewhat different in each sixth for short-time versus long-time control. The results were as follows:

TABLE 5
SHORT-TIME VERSUS LONG-TIME MEAN EFFECTIVENESS INDEX FOR
60 PREDISPOSITION CATEGORIES

| <i>Rank order of initial acceptance</i> | SHORT-TIME DATA | | LONG-TIME DATA | |
|---|---|--------------------------------|---|--------------------------------|
| | <i>Av level of initial acceptance</i> | <i>Effectiveness index</i> | <i>Av level of initial acceptance</i> | <i>Effectiveness index</i> |
| (most) 1-10 | 77.1% | 17.4% | 74.7% | 30.8% |
| 11-20 | 59.2 | 23.5 | 58.0 | 28.6 |
| 21-30 | 53.1 | 10.0 | 46.0 | 25.7 |
| 31-40 | 45.7 | 23.8 | 44.2 | 19.0 |
| 41-50 | 33.2 | 16.6 | 31.8 | 14.7 |
| (least) 51-60 | 12.4 | 10.0 | 14.6 | 9.6 |

While the results show some unexplained variations, it will be observed that with a high level of initial acceptance the mean long-time effects are larger than the mean short-time effects—indicating an increment with passage of time—whereas with low initial level of acceptance the mean short-time effects are the larger—indicating decrements.⁴ Also a clear trend of greater effect with greater initial acceptance is seen for the long-time results. In the short-time results no clear-cut trend is visible. It is interesting that the dividing point between the effects that increase and those that decrease after a long interval is at about the 50-50 point of initial division of opinion.

While the above results are very indirect as evidence, they support the idea that degree of retention of opinion changes and the extent to which effects increase with lapse of time is in part a function of initial predisposition to accept the opinion affected.

However, it seems likely that this "predisposition hypothesis" is not sufficient by itself to account for the "sleeper" effects observed. For one thing, while the expected trend does appear in Table 5, the closeness of the relationship is not striking. The rank order correlation of effects and initial level even for long-time is only .41 and for short-time is .09. This general lack of relationship with short-time effects—apparent in Table 5 as well as in the low rank-order correlation—is difficult to reconcile with the hypothesis. If a man is predisposed to believe an idea, he should *immediately* accept it more readily than ideas against which he is predisposed. We should therefore expect that the items that show increments over time would also show immediate effects at the short-time which might be as large or larger than the nonsleeper items. But this expectation is not confirmed in a single instance. Inspection of the data presented in Table 2 for items that showed an increment (items 8 through 15) shows that none of these "sleeper" or increment items showed a significant overall effect at the short-time interval. This failure to obtain any significant short-time effects for items where the long-time effects were greater than the short-time effects appears quite contrary to the expectations of the hypothesis. Thus while the results summarized in Table 5 are in line with the hypothesis of a predisposition factor, the operation of this factor

⁴ In computing mean effects, the sign given to each effect is positive for the direction of change found significant in the overall results shown in Table 5, and effects have been measured in terms of the "effectiveness index" to take account of the varying initial levels

would not by itself account for all of the findings. What is needed is some mechanism to account for *delayed* effects that do not show up at all immediately after the film. It is interesting in this connection that while a "selection ceiling," as described in Chapter 3, is suggested by the results for the short-time men, no such result is obtained among the long-time men. An elaboration of the present hypothesis might be that "sleeper" effects are likely in the "die-hards" who resist the message at first but eventually change their opinion in conformity with the predisposing factors of their subgroup of the population.

Other Hypotheses

A number of other hypotheses may be advanced suggesting possible factors contributing to the increments on some of the opinion items. These hypotheses could not be checked in the present experiment but they are presented below because they may provide useful areas for future study.

1. *Forgetting of an initially discounted source* One hypothesis that could explain the results would be that some of the themes of the presentation were initially accepted and others were initially discounted as having a biased source. According to this hypothesis, forgetting is the rule but the *source* of an item of information is more quickly forgotten than the material presented. Thus the men might have retained a feeling that the British did well in the war long after they have forgotten about seeing the film, "The Battle of Britain." The factors involved in this hypothesis would be maximized in situations where the content was very well presented but where the source was suspect, so that the main factor preventing an attitude change is nonacceptance of the trustworthiness of the source. In this case, what is remembered and what is believed may be kept separate at first, but if the content "sticks" after the source is forgotten, it may no longer be discounted. Content would of course be subject to some forgetting, so that the net result would be a decrement of effect with passage of time for those contents which are *immediately* accepted contents, but an increment of effect for those contents for which forgetting of the suspected source proceeded more rapidly than forgetting of the content.

2. *Delayed interpretation in a relevant context.* Another hypothesis is that while forgetting of content is the rule, the implications of the initially learned content may not be apparent to the audience at the outset but may become more clear later when the material

learned in the film becomes relevant to some new experience. Thus the film, "The Battle of Britain" showed the defeat of the Luftwaffe by the much smaller RAF and the frustration of the Nazi plans for the capitulation of Britain. Initial effects on fact-quiz and attitude items indicated that this content was learned. However, the film in no way presented the idea that the Nazi military machine was weak or that their strategy and tactics were inferior, and nothing in the initial effects indicated that this was a conclusion immediately drawn by the men as a result of seeing the film. However, if the men were later forced to consider the implications of these facts as to the likelihood that the Nazis could defeat the Allies, they might conclude that if the Germans could not defeat little Britain they have little chance of winning the war, as in the delayed effect on item number 14 in Table 2

An expectation from this second hypothesis is that material directly related to the content of the film would tend to show a decrement with time in correspondence with the forgetting curve, whereas increments would occur only for indirect implications of the content that could be initiated at a later time while a fair amount of the content was still retained. However, as already noted (Chapter 6, p. 171f), a differentiation between direct and indirect implications is one which it was not feasible to make clearly with these films

3. *Conversion of details into attitudes.* A third hypothesis to account for the results involved a possible factor that would, if it actually functions, be of more general significance for theory concerning attitude formation. According to this hypothesis, forgetting is accompanied by loss of specificity of content—the details drop out and only the "general idea" or "substance" of the material remains. This "general idea" that is retained is in a more generalizable form, so that the individual has a greater tendency to go beyond the facts initially learned. In this sense attitudes are to a certain extent "general ideas" that lack specificity and generalize more broadly than is justified by the evidence

An example of the interpretation from this hypothesis in the case of the film, "The Battle of Britain," would be that initially the men learned specific facts about the performance of the British, particularly the RAF, during the Battle of Britain, but as the specific facts were forgotten all that was remembered was that the British had performed well in the war. In this form the "general idea" applies to all British rather than just the RAF and to the entire war rather than just the Luftwaffe attack on England. Any opinions that

dealt with specific contents would show a decrement with time, whereas those dealing with generalizations beyond the evidence would show an increment with time.

Delayed Effects on Orientation Objectives

One final question raised by the findings in this comparison of long-time and short-time effects of an orientation film is the extent to which delayed effects were found in the orientation objectives of the film. This is a question of methodological importance in the evaluation of an educational program designed to affect attitudes, because the evaluation may provide a different answer depending on the point in time at which the program is evaluated. The findings in the present study indicate a real possibility that at least in the case of the film, "The Battle of Britain," greater effects on orientation attitudes were obtained after a nine-week lapse of time than after only five days. The relevant findings are presented below.

The orientation objective most relevant to the film was that of increasing confidence in our ally, Britain. While many items about Britain were included to test the effects of the film, only six items were used for the specific purpose of determining general orientation attitudes toward Britain. The short-time and long-time effects for these items are shown in Table 6. The effects are measured as differences between before-after changes for all questions used in both questionnaires.

Results on other standard orientation items not specific to opin-

TABLE 6

EFFECTS ON THE ORIENTATION OBJECTIVE OF INCREASING MEN'S
CONFIDENCE IN THE BRITISH

| <i>Content of item</i> | EFFECT OF FILM | |
|--|--------------------------|-------------------------|
| | <i>Short-time effect</i> | <i>Long-time effect</i> |
| British are doing all they can to help in the war | 7% | 3% |
| British will try to work out a just peace after the war | 9 | 7 |
| British are taking it easy in hope that U S will win the war for them (disagree) | 2 | 9 |
| British are doing their fair share of the fighting | 2 | 16 |
| British will fight on to the end (rather than seek a separate peace) | 1 | 4 |
| British are to blame for America's entry into war (disagree) | -2 | 11 |
| Mean | 3 2% | 8 3% |

ions of the British are shown in Table 7. These items are of lesser relevance to the film than the above items concerning Britain as an ally. Specific contents of individual items are not shown; only the general area of the items is given. In the case of each area, however, the results given are the averages for all of the standard items used in that area.

TABLE 7
EFFECTS ON GENERALIZED ORIENTATION OBJECTIVES

| <i>Content of area</i> | AVERAGE EFFECT OF FILM | |
|---|------------------------|------------------|
| | <i>Short-time</i> | <i>Long-time</i> |
| The US had to fight—war was unavoidable (3 items) | 0.3% | 6.0% |
| Resentment against the enemy (2 items) | -2.0 | 5.0 |
| Confidence in home support (4 items) | -1.0 | 2.0 |
| Willingness to serve (2 items) | 1.5 | 0.5 |
| Mean | 0.5% | 3.4% |

In both Table 6 and Table 7 the mean effect is larger at the long-time interval. This indicates that a greater effect of the film in achieving its orientation objectives was present after nine weeks than after one week. However, the results are not highly consistent from item to item in Table 6 nor from area to area in Table 7. In neither case is the result reliable at the 5 per cent level if we treat the questions used as a sample from the population of relevant items.

While inconclusive, the results have a bearing on two important problems: (1) they support the hypothesis that changes in opinions of a general rather than specific nature may show increasing effects with lapse of time, and (2) they focus attention on the methodological problem of selecting the point in time at which measurements should be made after a presentation in order to detect its full effects. At the outset of the present studies it was more or less assumed that deterioration of effects with time would be the rule; it now appears that this assumption is not warranted in the case of opinions of a general nature.

*THE EFFECTS OF PRESENTING "ONE
SIDE" VERSUS "BOTH SIDES" IN
CHANGING OPINIONS ON A
CONTROVERSIAL SUBJECT*

.....

I N DESIGNING Army orientation programs an issue which was frequently debated was this question. When the weight of evidence supports the main thesis being presented, is it more effective to present only the materials supporting the point being made, or is it better to introduce also the arguments of those opposed to the point being made?

The procedure of presenting only the arguments supporting a thesis is often employed on the grounds that when the preponderance of the evidence supports the point being made, the presentation of opposing arguments and misconceptions merely raises doubts in the minds of the audience. On the other hand, the procedure of presenting the arguments for both sides was defended on the grounds of "fairness"—the right of members of the audience to have access to all relevant materials in making up their minds. Furthermore, there is reason to expect that those audience members who are already opposed to the point of view being presented may be distracted by "rehearsing" their own arguments while the topic is being presented and will be antagonized by the omission of the arguments on their side. Thus, presentation of the audience's arguments at the outset possibly would produce better reception of the arguments which it is desired to convey.

The present experiment was set up to provide information on the relative effectiveness of these two types of program content in changing the opinions of individuals initially opposing as compared with those favoring the position advocated in the program. Controlled variation of treatment was introduced by preparing two transcrip-

tions with the same orientation message in alternative forms. In one form arguments were presented on only one side of the issue; in the other both sides were presented.

METHODS OF STUDY

1. THE TWO PROGRAMS USED

At the time the experiment was being planned (early 1945) the war in Europe was drawing to a close and it was reported that Army morale was being adversely affected by overoptimism about an early end to the war in the Pacific. A directive was issued by the Army to impress upon troops a conception of the magnitude of the job remaining to be done in defeating Japan. This furnished a controversial topic on which arguments were available on both sides but where the majority of experts in military affairs believed the preponderance of evidence supported one side. It was therefore chosen as a suitable subject for experimentation.

Radio transcriptions rather than films were used, primarily because of the simplicity with which they could be prepared in alternative forms. The basic outline of the programs' content was prepared by the Experimental Section. All materials used were official releases from the Office of War Information and the War Department. The final writing and production of the programs were carried out by the Armed Forces Radio Service.

The two programs compared in this chapter were in the form of a commentator's analysis of the Pacific War. The commentator's conclusion was that the job of finishing the war would be tough and that it would take at least two years after VE Day. A brief description of the two programs follows.

Program I ("one side"): The major topics included in the program which presented *only* the arguments indicating that the war would be long were: distance problems and other logistical difficulties in the Pacific; the resources and stockpiles in the Japanese Empire; the size and quality of the main bulk of the Japanese Army that we had not yet met in battle, and the determination of the Japanese people. The program ran for about fifteen minutes.

Program II ("both sides"): The other program ran for about nineteen minutes and presented all of these same difficulties in exactly the same way. The difference of four minutes between this and the "one-sided" program was the time devoted to considering arguments for the other side of the picture—U.S. advantages and Japanese

weaknesses such as our naval victories and superiority, our previous progress despite a two-front war, our ability to concentrate all our forces on Japan after VE Day, Japan's shipping losses, Japan's manufacturing inferiority, and the future damage to be expected from our expanding air war. These additional points were woven into the context of the rest of the program.

Before the preparation of these programs, pretests had been conducted in which men were individually interviewed on questions relating to the length of the war with Japan. The purpose of this was to discover what arguments were actually used by the soldiers who took the position that the war would soon be over. At the same time, the phrasing of questions for the final questionnaire to be used in the study was worked out. This qualitative pretest was followed by a quantitative pretest on 200 men to discover the approximate distribution of men's estimates of probable length of the war and the approximate frequency of the various arguments for and against a short or long war. The information thus gained was then used as a basis for preparing an outline of the factual material to be used in the program, greatest weight being given to the material relevant to countering the arguments most frequently offered by the men as a basis for expecting an early end to the war in the Pacific after VE Day.

In preparing the programs, the sequence and manner of presenting the various arguments was guided, in so far as possible, by principles thought to be those which would most effectively utilize the arguments on both sides so as to convince the men initially opposed to the orientation message. The major hypothesis governing the preparation of the presentation giving "both sides" was that those who were opposed would be stimulated by a one-sided argument to rehearse their own position and seek new ways of supporting it. A further aspect of this hypothesis was that those opposed to the position taken would discount a one-sided presentation as coming from a biased source that had failed to consider the arguments on the other side. The introduction of the arguments "on the other side" was designed to minimize such tendencies among those opposed. In line with these considerations, the following provisional rules or principles of presentation were formulated

(1) *All of the main arguments on the other side should be mentioned at the very outset.* This was designed to have the effect of indicating to the opposed members of the audience from the very beginning that their point of view and supporting arguments would not be

neglected. As a consequence it was expected that they would be less likely to start rehearsing their own arguments to themselves, more likely to credit the presentation as having the authenticity that usually goes with unbiased interpretations, and less likely to have their own emotional motivations aroused against accepting the conclusion of the communication.

(2) *Any appeals to the motives of the opposed audience members should be presented early.* On the assumption that appeals to motives are the most important determiners of opinion change, it seems likely that with opposed audience members the rational arguments would be more influential if the emotional appeal had already been made as far as possible. This timing would be less important with individuals already emotionally predisposed to accept the conclusion—the latter group would be highly receptive to the rational arguments that backed up their position.

(3) *Opposed arguments that cannot be refuted should be presented relatively early.* Such arguments actually tend to weaken the conclusion, but they serve to satisfy the opposition and thus reduce antagonism. By high-lighting them fairly early in the communication, the maximal advantage in reducing aggressive tendencies is obtained, but they should also be expected to be remembered less at the conclusion of the communication.

(4) *An attempt to refute arguments on the other side should be made only when an obviously compelling and strictly factual refutation is available.* Here the expectation is that any attempted refutation will have a tendency to antagonize the opposed members of the audience, and may motivate them to seek new arguments to support their position. Therefore, direct refutation should be considered only when it is based on factual evidence so strong that it will be accepted even by those who are opposed.

(5) *An unrefuted opposed argument should be followed by an uncontroversial positive argument.* The inference here is that a negative argument can be offset by an equally strong or even stronger positive argument. It may even be true that the effect will often be greater if a refutable negative argument is left unrefuted in order not to arouse any antagonistic motivation—in order to avoid getting the opposed listener's "ego" involved—and is instead offset by a positive argument that is accepted as valid by the opposition. The order of negative, then positive, should serve to indicate that the negative point is being considered, but that despite this important point on the negative side, the positive point swings the balance in

the direction of the conclusion endorsed. This sequence should take advantage of the appearance of impartiality and satisfy the opposition as to the correctness and relevance of their own considerations, but still leave the weight of evidence against their position.

(6) *The timing in presenting counter arguments of the opposition should be: positive argument leading, objection raised by an opposed counter argument, and then positive argument offsetting the objection.* One purpose of this sequence is to state the negative argument exactly at the time that it is most likely to be aroused implicitly in the opposition group. They therefore should not be so likely to rehearse the argument in an antagonistic frame of mind, but instead be gratified to hear their own position voiced. At the same time their argument is presented in a context of doubt, and the argument that is favored by both primacy and recency is the positive argument that is used to refute or offset the negative counter argument.

(7) *Any refutations, and those positive arguments which are potentially most antagonizing, should come late in the presentation.* This follows from the expectation that a potentially antagonizing refutation will elicit less antagonism if the opposition has already been changed in a positive direction by the preceding portions of the communications. If they have already been partly "won over" to the position of the communication, they may not be at all antagonized by an idea that would have aroused aggression at the outset.

(8) *Members of the opposition should not be given a choice to identify themselves as such.* This principle is perhaps more difficult to utilize than the others. The basis for the principle is that a person is easier to change if he does not have his "ego" involved in supporting a particular point of view. If he feels that he belongs to a group that is being attacked by the communication, he is more likely to respond with aggressive resistance. Anything that can be done to present the communication as if it represented the views of each member of the audience, or to prevent the listeners from taking sides on the issue, should make those initially opposed more susceptible to change.

Not all of these "rules" could be adhered to strictly in the preparation of the actual scripts. However, an outline of the factual material to be presented was organized in such a way as to follow rather closely the implications of the first five rules, and in general to introduce the negative arguments at those points where, as determined by pretests, they seemed most likely to occur spontaneously to the opposed members of the audience. In these pretests, interviewers

had actually presented the case for a long war in a face-to-face situation and had attempted to elicit counter arguments from interviewees who felt that the war would be short. In the final scripts used, refutations of the opposed arguments were in general avoided. Counter arguments rarely took the form of trying to *disprove* or *deny* the truth of an important argument, rather, the truth of the argument was admitted but its force was weakened by immediately bringing in additional relevant facts.

The outline of factual material thus organized was used by the script writers as the basis for preparing the program that used arguments on "both sides" of the question. The script for the "one-side" version was identical with that for "both sides" except for the omission of all facts or arguments supporting a short war, plus a very few wording changes necessary for transitional purposes.

At the time of preparing the scripts, the writer knew the purpose of the experiment and the actual wording of the main question to be used in measuring the effects of the transcriptions.

It should be pointed out that while Program II gave facts on *both sides* of the question, it did not give equal space to both sides, nor did it attempt to compare the case for thinking it would be a long war with the *strongest possible case* for believing it would be an easy victory and a short war. It took exactly the same stand as that taken by Program I—namely, that the war would be difficult and would require at least two years. The difference was that Program II mentioned the opposite arguments (e.g., U.S. advantages). In effect it argued that the job would be difficult, even when our advantages and the Japanese weaknesses were taken into account.

2. CONDUCT OF THE EXPERIMENT

The general plan of the experiment has been discussed in another connection in Chapter 5. The procedure was to give a preliminary "opinion survey" to determine the men's initial opinions about the Pacific War and then to remeasure their opinions at a later time, after the transcriptions had been played to them in the course of their orientation meetings. In this way the *changes* in their opinions from "before" to "after" could be determined. A control group, which heard *no* transcription, was also surveyed as a means of determining any changes in response that might occur during the time interval due to causes other than the transcriptions—such as the impact of war news from the Pacific

Since the purpose of the study was to analyze differential effects

of two kinds of content on individuals with differing initial opinions, it was desirable to obtain for analysis the maximum overall effects possible. For this reason the effects were measured immediately after the presentation of the programs. It is, of course, conceivable that the effects might have been even greater after a longer time interval, and further that with the longer time interval the pattern of effects might have been different from the immediate effects observed.

The preliminary survey was administered during the first week of April 1945 to eight Quartermaster training companies. One week later eight platoons, one chosen at random from each of the eight companies, heard Program I (which presented only one side) during their individual orientation meetings. Another group of eight platoons, similarly chosen, heard Program II (which presented both arguments). Immediately after the program the men filled out the second questionnaire, ostensibly for the purpose of letting the people who made the program know what the men thought of it. Included in this second questionnaire, with appropriate transitional questions, were some of the same questions that had been included in the earlier survey, asking the men how they personally sized up the Pacific War. A third group of eight platoons served as the control with no program. They filled out a similar questionnaire, during their orientation meeting, which, in addition to asking the same questions on the Pacific War, asked preliminary questions about what they thought of their orientation meetings and what they would like in future orientation meetings. For the control group, the latter questions—in lieu of the questions about the transcriptions—were represented to the men as the main purpose of the questionnaire.

While 24 platoons were used for this experiment, the units were at only about 70 per cent of full strength at the preliminary survey and at the orientation meetings. The "shrinkage" was therefore quite large as to number of men present *both* times, and the sample available for "before-after" analysis was consequently small (a total of 625 men, with 214 in each experimental group and the remaining 197 men in the control group). In view of the rapidly changing picture in the Pacific, however, it was considered inadvisable to repeat the experiment at another camp.

3. ADMINISTRATION

For proper administration of the experiment there were three major requirements: presentation of the transcriptions under realistic conditions, preventing the men in the sample from realizing that the experiment was in progress, and getting honest answers in the questionnaires. For realism in presentation, the transcriptions for the experimental groups were incorporated into the training program and scheduled as part of the weekly orientation hour. This not only insured realistic presentation but also helped to avoid indicating that effects of the transcriptions were being tested.

The preliminary "survey." The preliminary "survey" had been presented as being part of a War Department survey "to find out how a cross section of soldiers felt about various subjects connected with the war," with examples being given of previous Research Branch surveys and how the findings had been used. Questionnaires were administered to all the men in a company at once, the men being assembled in mess halls for the purpose. The questionnaires were administered by "class leaders" selected and trained for the job from among the enlisted personnel working at the camp. In an introductory explanation of the survey the class leader stressed the importance of the survey and the anonymity of the answers. No camp officers were present at these meetings and the men were assured that the surveys went directly to Washington and that no one at the camp would get a chance to see what they had written. The questionnaire used in this preliminary "survey" consisted mainly of check-list questions plus a few questions in which the men were asked to write their own answers. The content of most of the questions was the point system for demobilization and the Army's plans for redeployment. This was a convenient context for the questions that formed the measuring instrument per se which dealt with the difficulty of defeating Japan. The questions about the point system and redeployment were not necessary for the actual experimental measurements but were used to give scope to the "survey" and to prevent a concentration of items dealing with material to be covered by the transcription. This was done partly to help make the survey seem realistic to the men but mainly to avoid "sensitizing" them to questions about the topic of the subsequently presented orientation material through placing too much emphasis on it in the survey.

The second questionnaire. To prevent the men from suspecting that an "experiment" was in progress because of the administration of two questionnaires within a short space of time, the second questionnaire differed from the first one both in its form and its announced purpose. Thus the first questionnaire was given as a general War Department "survey" while the second one was given during the orientation meetings to "find out what men thought of the transcriptions" (or, in the control group, "what they thought of their orientation meetings").

An additional difference in the administration of the two questionnaires, which was also designed to reduce the appearance of similarity, was that while the first had been given by company in mess halls the second was administered by platoon in the men's barracks where the orientation meetings were held.

While the ostensible purpose in giving the men the second questionnaire was to get their opinion of the program, appropriate "tie-in" questions, such as whether or not they thought the commentator too optimistic or too pessimistic, were used to lead to the questions as to how long they thought the war would last and on the other topics concerning the difficulty of the job

As in studies of opinion changes described in earlier chapters, it was considered necessary in the case of the present study to obtain opinions anonymously, and also to measure the effects of the program without awareness on the part of the men that an experiment was in progress. These precautions were dictated by the type of effect being studied—it was felt that if the men either thought their questionnaires were identified by name or if they knew they were being "tested," some men might give "proper" or otherwise distorted answers rather than answers expressing their true opinions in the matter.

ANALYSIS OF RESULTS

The results to be presented are based on an analysis of the responses of men whose preliminary survey could be matched with the "after" questionnaire given in the orientation meetings. Although all of the questionnaires were anonymous, the "before" and "after" questionnaires of the same individual could be matched on the basis of answers to such personal-history questions as years of schooling, date of birth, etc., with handwriting serving as an additional factor among men whose personal history was similar.

1. Overall Effects of the Two Programs on the Marginal Distribution of Estimates of the Length of the War

As previously stated, the main question used to evaluate the effectiveness of the two programs was a question asking men for their estimates of the probable length of the war with Japan after VE Day. The wording of this question was the same in both the "before" and the "after" questionnaire and was as follows:

What is your guess as to how long it will probably take us to beat Japan after Germany's defeat? (Write your best guess below)

About _____ from the day of Germany's defeat.

The men's answers to this question tended to be in half-year intervals and were accordingly coded by steps of one-half year each.

A marked overall shift in an upward direction in the distribution of estimates was obtained. The results are shown below with the answers dichotomized into those estimating one-and-one-half years or less versus those estimating more than one-and-one-half years.

TABLE 1
OVERALL EFFECTS OF THE TWO PROGRAMS ON DISTRIBUTION
OF ESTIMATED LENGTH OF WAR

| | PERCENTAGE ESTIMATING A WAR OF MORE THAN ONE-AND-ONE-HALF YEARS | | |
|-------------|--|----------------------------|----------------------|
| | <i>Experimental groups</i> | | <i>Control group</i> |
| | Program I "One side" | Program II "Both sides" | |
| Before | 37% | 38% | 36% |
| After | 59 | 59 | 34 |
| Difference | 22% | 21% | -2% |
| Probability | < 01 | < 01 | |

The effectiveness of both programs is revealed by the marked change shown for both experimental groups (with practically no change for the control group). However, no advantage for one program over the other for the audience as a whole is revealed.

While changes in overall frequencies of response, such as those shown above, are often useful in evaluating the effectiveness of a

program at achieving its educational objective, they are not usually the most sensitive measure of effects. In the present case if the orientation objectives were specifically to prepare the men to expect a war of at least one-and-one-half years after VE Day, the above analysis does reveal the increase in the number of men holding this desired point of view. However, an analysis of this form often conceals other effects important for a more complete description of the changes that occur. Thus shifts occurring within the region below the point of dichotomy (e.g., from an estimate of six months to an estimate of one year) or within the region above this point (e.g., from two-and-one-half years to three years) are not revealed. A more sensitive analysis of the overall effects is described in the next section.

2 *Analysis in Terms of Net Proportion Who Change*

Since measurements on the same men were made both before and after the programs it was possible to get each man's individual change in estimating the length of the war. As already stated, the answers tended to be in terms of half-year units, so the minimum change occurring with a sizable frequency was a change of one-half year. Accordingly, the results were analyzed in terms of whether a man increased or decreased his estimate—from "before" to "after"—by one-half year or more. This analysis gets at individual shifts all along the time continuum, irrespective of whether they cross a particular cutting point along the marginal distribution.

Using this analysis procedure it was found that in all groups some men increased their estimates and others decreased their estimates. This is to be expected merely from the knowledge that most opinion questions are not perfectly reliable. In addition, a certain amount of "turnover" of opinion is expected because of various individual experiences during the interval between the two measurements.

The results showed, however, that in the control group the positive shifts (increased estimates) were about equal in number to the negative shifts, but that in both experimental groups the positive shifts greatly exceeded the negative shifts. These results are shown in Table 2.

Here the programs are seen to have resulted in a net proportion of *two-fifths* of the men increasing their estimates. On the basis of the analysis procedure used in Table 1 we could only have been sure that a net of around *one-fifth* was affected.

TABLE 2

EFFECTS OF THE PROGRAMS IN TERMS OF NET PROPORTION
CHANGING THEIR ESTIMATES

| <i>Kind of change</i> | PERCENTAGE WHO CHANGED THEIR ESTIMATE BY ONE-HALF YEAR OR MORE | | |
|--|---|----------------------------|----------------------|
| | <i>Experimental groups</i> | | <i>Control group</i> |
| | Program I "One side" | Program II "Both sides" | |
| No change | 46% | 45% | 63% |
| Increased estimate | 47 | 47 | 18 |
| Decreased estimate | 7 | 8 | 19 |
| Net change (increase minus decrease) | 40 | 39 | -1 |
| Net effect (experimental change minus control change) | 41 | 40 | |
| <i>Probability*</i> | <.01 | <.01 | |

* The method for determining the significance level of the "net effect" utilizes the fact that the net change for each group is the difference between two mutually exclusive proportions in the same sample—namely, the proportion P_1 who gave an increased estimate and the proportion P_2 who gave a decreased estimate. The net effect, is the difference between two such differences—i.e., the difference between the net change for an experimental group and that for the control group. Its standard error is given by the formula

$$\text{Est } \sigma_{\text{diff} - \text{diff}} = \sqrt{[P_1 + P_2 - (P_1 - P_2)^2] \left[\frac{1}{N_E} + \frac{1}{N_C} \right]}$$

where P_1 and P_2 are the above stated proportions computed for the experimental and control groups combined, and N_E and N_C are the N 's for the experimental and control groups (See Appendix, B, pp 303-304.)

3. *Effects of the Programs on Men Initially Opposing and Initially Favoring the Commentator's Conclusion*

The results already reported indicate no greater effectiveness of either program on the audience *as a whole*. However, as mentioned earlier, a critical feature in the theory underlying the experiment was the expectation of adverse effects of the "one-sided" program on men initially opposing the commentator's view that the war would take at least two years after VE Day. In line with the theory, therefore, the results were analyzed separately for men who initially opposed and those who initially favored the stand taken by the programs. The basis for distinguishing these two groups was whether their initial estimate of the length of the war in the "before" questionnaire was, respectively, less than two years, or was two years or more. The measure used in the analysis was the "net effect" described in the previous section for changes of one-half year or more.

The net effects of the two ways of presenting the orientation material are shown below for these two subgroups of men, those initially estimating a war of less than two years (the "opposed" group) and those initially estimating a war of two or more years (the "favorable" group). Control results are omitted for simplicity since the present concern is with comparing the two programs, both of which had the same control.

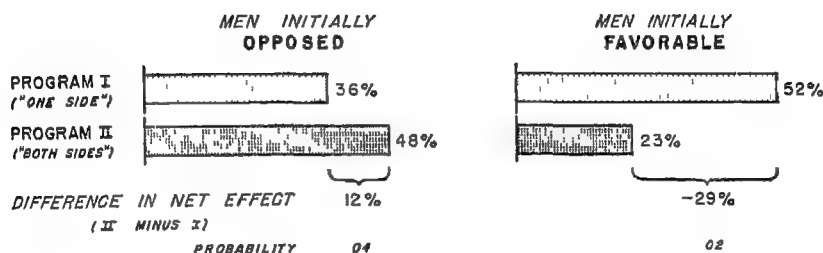


Figure 1 Differential effects of the two programs on men initially opposing and men initially favoring the commentator's position

See supplementary Table A, p 226, for subgroup *N*'s and control results

The above chart shows that the *net effects* were different for the two ways of presenting the orientation material, depending on the initial stand of the listener. The program giving some of the U.S. advantages in addition to the difficulties was more effective for men initially opposed, that is, for men who, contrary to the programs, expected a war of less than two years. On the other hand, the program giving the one-sided picture was more effective for men initially favoring the stand taken, that is, for the men who agreed with the point of view of the programs that the war would take at least two years. The initial division of opinion was roughly three men opposing to every man favoring the stand taken, but since the differential effect was greater in the latter group the overall net effects on the men as a whole were almost equal for the two programs.¹

4 Effects on Men with Different Amounts of Education

In line with theoretical considerations and data presented in Chapters 4 and 6, it would be expected that the better educated men would be less affected by a conspicuously one-sided presentation and would conversely be more likely to accept the arguments of a pres-

¹ The statistical test used to assess the reliability of the differential effects is exactly analogous to that used in the previous section. In the above case, however, the control is not involved since the experimental subgroups can be directly compared.

entation that appears to take all factors into account in arriving at a conclusion. On the other hand, the consideration of both sides of an issue could weaken the immediate force of the argument for the less well educated insofar as they are less critical and more likely to be impressed by the strength of the one-sided argument without thinking of objections.

When the results were broken down according to educational level, it was found that the program which presented both sides was more effective with better educated men and that the program which presented one side was more effective with less educated men. Figure 2 shows results comparing the effects on men who did not graduate from high school with the effects on high school graduates. This breakdown by education divides the sample into approximately equal halves.

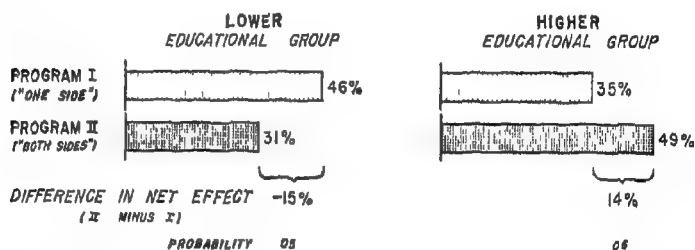


Figure 2 Differential effects of the two programs on men of different educational backgrounds

See supplementary Table B, p 226, for detailed computations

The above results show that the program giving both sides had less effect on the nongraduates but more effect on the high school graduates.

5. *Effects When Both Education and Initial Estimates Are Considered*

The interesting question arises as to how initial position on the issue presented by the transcription is related to effects among men in each educational group. Definitive results on this point could not be obtained because of the small number of cases involved when the sample is broken into the eight subgroups required for this analysis. The data available are presented, however, to indicate the trends and to suggest a hypothesis deserving further study. that the argument giving both sides is more effective among the better educated regardless of initial position whereas the one-sided presen-

tation is primarily effective with those who are already convinced among the less well educated group (Figure 3).

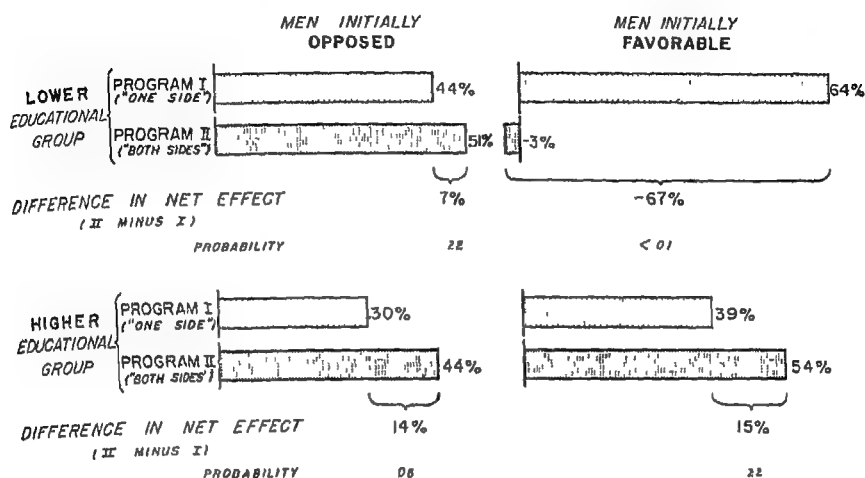


Figure 3 Differential effects of the two programs on men initially opposing and men initially favoring the commentator's position, shown separately for men with different education

See supplementary Table C, p 227, for detailed computations

The conclusions suggested by the pattern of results presented thus far may be summarized as follows. Giving the strong points for the "other side" can make a presentation more effective at getting across its message, at least for the better educated men and for those who are already opposed to the stand taken. This difference in effectiveness, however, may be reversed for the less educated men and, in the extreme case, the material giving both sides may have a negative effect on poorly educated men already convinced of the major position taken by a program. From these results it would be expected that the total effect of either kind of program on the group as a whole would depend on the group's educational composition and on the initial division of opinion in the group. Thus, ascertaining this information about the composition of an audience might be of considerable value in choosing the most effective type of presentation.

6. Men's Evaluation of the Factual Coverage

One factor that should tend to make a presentation taking into account both sides of an issue more effective than a presentation

covering only one side is that the men might believe the former treatment to be more impartial and authoritative.

In the present study, however, the group as a whole did not consider the factual coverage more complete in the program giving U.S. advantages in addition to the difficulties faced. This is illustrated below.²

Per cent of men saying that the program did a good job of giving the facts on the Pacific War

| | |
|-------------------|-----|
| <i>Program I</i> | |
| ("one side") | 61% |
| <i>Program II</i> | |
| ("both sides") | 54 |

Per cent of men saying that the program took all of the important facts into account

| | |
|-------------------|-----|
| <i>Program I</i> | |
| ("one side") | 48% |
| <i>Program II</i> | |
| ("both sides") | 42 |

It can be seen above that the factual coverage was not considered better in the program giving U S. advantages as well as the difficulties. The difference obtained was in the opposite direction, although not reliably so. Essentially the same results were obtained for each of the two educational subgroups analyzed

The explanation of this unexpected result apparently lies in the fact that both programs omitted any mention of Russia as a factor in the Pacific War, and *this omission seemed more glaring in the presentation that committed itself to covering both sides of the question.* This somewhat paradoxical conclusion is well supported by results to be shown shortly and while it was not anticipated it is quite understandable in retrospect.

At the time that the Pacific War was chosen as the orientation subject for the experiment it was recognized that a weakness of this topic was that under existing informational policy no stand could be taken on the help to be expected from Russia. Thus maximum content difference between the two presentations could not be achieved because they *both* had to omit mention of an important argument on the "other side," namely, that Russia might enter the war against the Japanese. It was not anticipated, however, that

² The N's on which these percentages are based are 214 for Program I and 214 for Program II

this omission would be more noticeable in the program that otherwise covered both sides. That this actually happened was indicated by the men's answers to the "write-in" question: "What facts or topics that you think are important in the war with Japan are not mentioned in the program?" The percentages writing in that aid or possible aid from Russia was not mentioned are shown below.

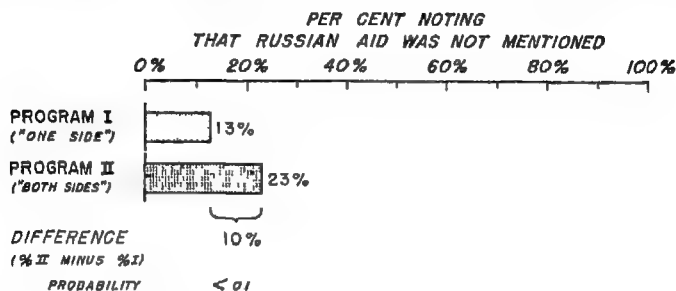


Figure 4 Frequency with which the omission of the topic of Russian aid was noted by the men

As shown above, almost twice as many men mentioned the omission of Russia in the program covering "both sides." The difference was even more pronounced among *groups that would be expected to be especially sensitive to this omission*, such as men who were initially optimistic about the length of the war, men with more education, and men who had indicated in the "before" questionnaire that they expected a great deal of help from Russia in the job against Japan.

7. Relative Effectiveness of the Two Programs on Men Most Likely to Note the Omission of the Topic of Russian Aid

In the preceding section it was shown that the program giving "both sides" was *not* considered more adequate than the one-sided program in its factual coverage and that it caused more men to note that Russia was not mentioned. The question now to be considered is whether this actually detracted from the effectiveness of this program that otherwise took all factors into consideration. A direct answer to this question cannot be given, but indirect evidence indicates that the omission did detract from this program's effectiveness.

The indirect evidence comes from a separate analysis of the results among men who initially opposed the point of view of the commentator. These were the men for whom the program giving both sides

was more effective, even with the omission of the topic of Russian aid. The question is, would it have been still more effective if this topic could have been included? To get evidence on this question this subgroup of opposed men was further subdivided according to whether or not they were predisposed to note the omission of Russia. The logic of the analysis was that men especially sensitive to the omission (because they were opposed and thought Russia might help) would not accept the commentator's argument, whereas those men who were opposed to his position but did *not* have Russian aid as one of their own important arguments for a short war would show less detrimental effect of the omission. The following question in the "before" questionnaire was used to subdivide the initially opposed men into those anticipating and those not anticipating substantial aid from Russia.

"How much help do you think America will get from other countries when it comes to the job of defeating the Japs?" (Check one)

- _____ very little
- _____ some, but not a great deal
- _____ a great deal (Which countries? _____)

The breakdown on this question among "opposed" men put about two-fifths of the men in the "sensitive" subgroup, that is, about two-fifths of the "opposed" men said they expected a great deal of help and *wrote in Russia* as one of the countries from which they expected a great deal of help.

When these subgroups of the "opposed" men were compared it was found that the men who counted on a great deal of help from Russia gave a relatively poorer evaluation of the factual coverage in the program giving "both sides" and were relatively less influenced in the direction of increasing their estimates of the probable length of the war.

The results for the men's evaluation of the factual coverage, based on two items, are shown in Figure 5.

The implication of the results in Figure 5 is that the authenticity of the program which presented both sides suffered from the omission of the subject of Russia. Men who counted on Russian aid had a lower evaluation of the factual coverage of this program than of the one-sided program.

The presumption from this indirect evidence is that if the program covering both sides had dealt with the subject of Russia, it might have been considered more complete in its factual coverage, particu-

larly among men who expected Russian aid. This inference receives corroboration from the fact that in a fairly large-scale pretest of the two programs, conducted at a time when possible aid from Russia was a less important news topic, the program covering "both sides" had been found to be *reliably more accepted* in its factual cov-

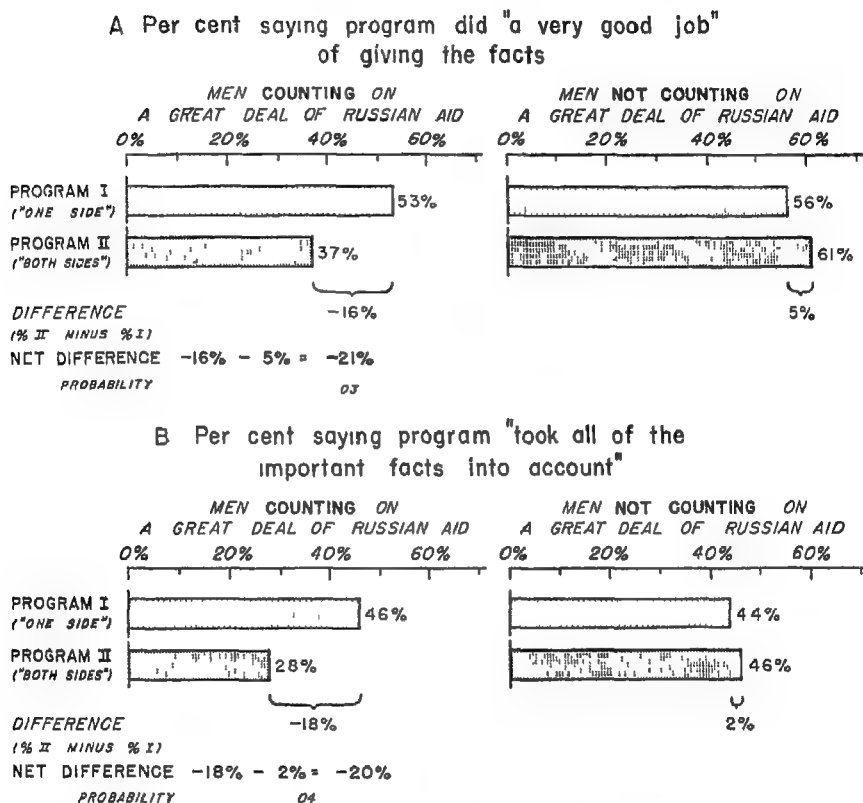


Figure 5 Differences in evaluation of factual coverage in the two programs, among men opposed to the commentator's position, comparing those who did and those who did not count on Russian aid

For subgroup N's, see supplementary Table D, p. 227.

erage, just the reverse of the results shown on page 216. This pretest was conducted with a sample of 347 Infantry reinforcements in March 1945 and practically no difference was obtained between the two programs in the percentages of men noting the omission of Russian aid. In the present study, however, the programs were played during the second week of April, about a week after the Russians announced that they would not renew their nonaggression pact with Japan.

Not only did the omission of the topic of Russia affect men's evaluation of the factual coverage in Program II in the subgroups above, but it may have reduced the effect of the program on the men's estimates of the length of the war. This is suggested by an analysis of the net effects of the programs on opinions of the men in the same subgroups as those used in Figure 5. The results of this analysis are shown in Figure 6.

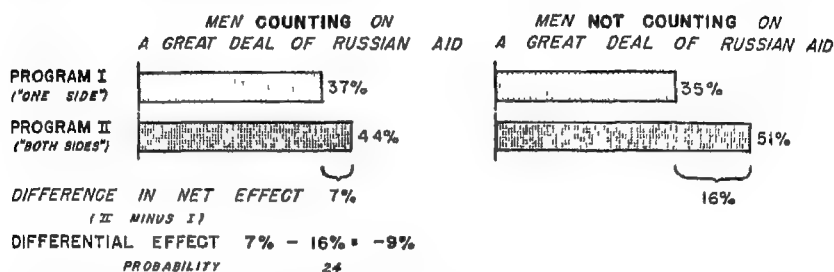


Figure 6 Differential relative effect of the two programs among men initially opposed but differing as to whether they had counted on a great deal of help from Russia. See supplementary Table D, p. 227, for *N*'s and control group results.

These results are in line with the expectation that among the men for whom the presentation with both sides is most effective (i.e., the men initially opposing the idea of a two-year war) the advantage of the "both-sides" presentation was less among those counting on a great deal of help from Russia than among those not expecting much help. The differential effect is too small to be reliable with the small number of cases involved in the above subgroups, but they are consonant with the interpretation that the effects of the program giving some of the "other side" would have been even greater on those opposed to the stand taken if *all* of the other side could have been covered.

All of the results dealing with the omission of the topic of Russian aid seem to support one important conclusion, namely, that if a presentation supporting a particular conclusion attempts to take both sides of the issue into account, it must include *all* of the important negative arguments; otherwise the presentation may "boomerang" by failing to live up to the expectation of impartiality and completeness.

Apparently the fact that the commentator in giving "both sides" indicated that he was trying to take *all* factors into consideration in drawing his conclusion prepared the men to expect the inclusion of possible Russian aid as one of the factors to be considered. Thus the omission in the context of considering all factors stood out more

than in the context of the one-sided program where only the difficulties were being considered. The general conclusion seems to be that a one-sided presentation in which the conclusion is stated in advance and the reasons for this conclusion are then given will be accepted as the argument for a given point of view without much loss of authenticity resulting from failure to cover the other side. However, if a presentation commits itself to taking everything into account, either by announcing this in advance or by actually covering parts of each side of the issue, it will seem less authentic than a single-sided presentation if any important facts known to the audience are not included in the discussion, and its effectiveness at changing opinions will be reduced among those who are most aware of the point omitted.

8. *Relation of the Results to the Contention That the Initially Opposed Will Be Negatively Affected*

The results of this experiment have an obvious bearing on the frequently made assertion that "propaganda" merely reinforces the opinions already held, i.e., that those initially favoring a point of view tend to be made more favorable, whereas those initially opposed may tend to become even more opposed than at the outset.³ This would be predicted on the grounds that a person is receptive to arguments having the conclusion he himself has already reached, but that arguments counter to a strongly held opinion serve as the occasion for an individual to rehearse the arguments favoring his side, to think up new arguments to combat the ones presented, to "get his ego involved" in his position, and so forth.

In all of the results shown comparing the net effects of the programs on men "initially opposing" the point of view presented by the commentator, it will be observed that "opposed" men were influenced in the direction of the "message" presented rather than against it. Thus regardless of educational level or expectation of aid from Russia the "opposed" men were influenced to accept the point of view of the commentator with either program. This is definitely contrary to the contention that "propaganda" merely reinforces existing beliefs.⁴

³ Cf. e.g., Murphy, G., L. B. Murphy and T. M. Newcomb, *Experimental Social Psychology* (rev. ed.) New York: Harper, 1937, p. 874f and 963f.

⁴ A word should also be said concerning the interpretations here placed on such expressions as "more opposed." The frequently stressed distinction between "intensity" of opinion and "content" or "direction" of opinion is relevant to this interpretation. Thus, changes in the direction of "more favorable" or "more opposed" might refer either to changes in the direction of a more extreme position on a content continuum, or to greater intensity of feeling on a given position, or both. However, the present discussion is limited to the former kind of change because of the absence of adequate measures of intensity.

It might be contended that in the results shown so far the men in the "opposed" group were not sufficiently opposed for the alleged phenomenon to be revealed. Thus the opposed group contained a sizable proportion who were close to the borderline of two years in their estimate of the length of the war and these could not be said to be very strongly opposed. But a finer breakdown of initial estimate reveals the same general result. This is shown below in Table 3 which shows net effects as a function of initial position for less broad categories than those used so far. The most opposed group possible with the coding used—that is, the group estimating a war of less than six months—is not shown because the number of cases was so small, only about one man in twenty fell in this category. However, even in this tiny group the results come out in the same direction. The results presented are for both programs combined.

TABLE 3

THE EFFECTS OF RADIO TRANSCRIPTIONS ON OPINIONS ABOUT DURATION OF WAR, FOR THOSE WITH VARIOUS INITIAL OPINIONS

| | NET PERCENTAGE CHANGING ESTIMATE BY ONE-HALF YEAR OR MORE AMONG MEN WHOSE INITIAL ESTIMATE WAS | | | |
|-----------------------------------|--|----------------------------------|-----------------------------------|----------------------------|
| | <i>Less than 1 year</i> | <i>1 year up to 1½ years</i> | <i>1½ years up to 2 years</i> | <i>2 years or more</i> |
| Net change in experimental groups | 58% | 53% | 26% | 2% |
| Net change in the control group | 20 | 6 | -12 | -34 |
| Net effects | 38 | 47 | 38 | 36 |

It will be seen that the familiar "regression" phenomenon occurs in the control group, that is, because of the imperfect reliability of the question on length of the war the men who initially made long estimates tend to make shorter ones and the men who initially made short estimates tend to make longer ones.⁵ The changes due to regression as indicated by the changes in the control group must be subtracted from the changes in the experimental group to obtain the net effect of the program, shown in the third line of figures in Table 3.

It can be seen from the net effects shown in Table 3 that even with the finer breakdown of initial estimate, all of the subgroups

⁵ This regression phenomenon, which may be unfamiliar to some readers, is discussed in Appendix D, p. 329ff.

were influenced in the direction of revising their estimates upward. This was true even of the men with the most extreme opposition—that is, men whose initial estimate was only one year or less.

These results are consistent with the results of analyses of data obtained in other studies reported in this volume. Several analyses were made in connection with the orientation film studies to see how opinion change was related to initial opinion. In all cases it was found that men initially opposed to a particular opinion were nevertheless influenced in the same direction as the men as a whole rather than being driven further in the direction of their original position. An example of such an analysis is adduced here to illustrate the general conclusion.

A scale of five opinion items was used to measure confidence in the "British War Effort" in the before-after study of "The Battle of Britain." This gave six categories of initial response according to whether the individual accepted none of the opinions expressed, one of them, and so on up to accepting *all five*. For the analysis, all men in the film group were sorted into these six categories as determined from their responses on the questionnaire administered *before* the film. The mean scale value for the "after" responses of each of these six subgroups was then determined, and these values compared with similar values for the control group. The mean changes for film and control groups are shown in the tabulation below.

Again we see the phenomenon of regression toward the mean in the control group. Thus men whose initial scale position was 0 re-

TABLE 4

MEAN CHANGE IN SCALE VALUES FOR FILM AND CONTROL SUBGROUPS
GETTING EACH SCALE SCORE BEFORE THE FILM
(SCALE OF 5 OPINION-ITEMS CONCERNING "BRITISH WAR EFFORT")

| | INITIAL SCALE POSITION | | | | | |
|---|------------------------|------|------|-------|-------|-----------------|
| | 0 (opposing) | 1 | 2 | 3 | 4 | 5 (favoring) |
| <i>Mean after-minus-before differences for those with each initial position</i> | | | | | | |
| Film group | 1.14 | 0.93 | 0.35 | 0.17 | -0.10 | -0.44 |
| Control group | 0.70 | 0.34 | 0.15 | -0.45 | -0.84 | -0.91 |
| Film-control difference | 44 | .59 | 20 | 62 | .74 | 45 |

gressed *up* to an average of .70 and men whose initial scale position was 5 regressed *down* to an average value of 4.09. But just as in the study of the radio programs *all* groups were affected in the direction of accepting the "message" of the communication, even the most extreme subgroup that had initially been so anti-British that they did not check a single response favorable to the British in the five items making up the British war effort scale.

It may be further argued that the contention that opposed men would be made more opposed applies not to the extremeness of their content position but rather to the intensity with which they hold their opinion or the extent of emotional involvement in supporting their point of view. No answer is available from the present studies on this interpretation of degree of opposition because measurements of intensity of feeling independent of content were not feasible. To the extent, however, that intensity and content are correlated, the present study and all other analyses that were made show negative results regardless of how "opposition" is defined for the type of communication investigated.

This qualification concerning the type of communications investigated is made because it seems theoretically possible that opposition would be fostered with some kinds of "propaganda." This seems especially likely for face-to-face situations in which the communicator and the communicatee become involved in a give-and-take argument. In such a case the individual who constitutes the "audience" himself takes a stand and is likely to have more "ego involvement," actively to seek new arguments in support of his position, and so forth. A similar situation would be the debate form of communication in which there is a protagonist for each side of the issue. If the audience is initially divided in opinion on the issue individual audience members would be expected to identify with the protagonist representing their own initial stand, and a situation similar to the face-to-face argument is created.⁶

9. *Summary of Results*

(1) Presenting the arguments on both sides of an issue was found to be more effective than giving only the arguments supporting the

⁶ Exposure to debates has been shown to strengthen the initial opinions of those audience members initially expressing an opinion and to reduce the neutral, no-opinion category by shifting some people in one direction and others in the opposite direction (Cf. Millson, W. A. D., "Problems in Measuring Audience Reaction," *Quart J Speech*, 1932, 18, 621-37.)

point being made, in the case of individuals who were *initially opposed* to the point of view being presented.

(2) For men who were *already convinced* of the point of view being presented, however, the inclusion of arguments on both sides was less effective, for the group as a whole, than presenting only the arguments favoring the general position being advocated.

(3) Better educated men were more favorably affected by presentation of both sides, less well educated men were more affected by the communication which used only supporting arguments.

(4) The group for which the presentation giving both sides was least effective was the group of poorly educated men who were already convinced of the point of view being advocated.

(5) An important incidental finding was that the absence of one relevant argument against the stand taken by the programs was more noticeable in the presentation using arguments on both sides than in the presentation in which only one side was discussed. Furthermore, advantage of the program giving both sides among men initially opposed was less for those who regarded the omitted argument as an important one.

(6) Men who were initially very opposed to the point of view being presented—as measured by their deviation in *content* from the position taken by the communication—were nevertheless influenced to alter their opinion in the direction of the “message” rather than being shifted further in the direction of their initial opinion.

SUPPLEMENTARY TABLE A

BREAKDOWN OF CHANGES IN ESTIMATES AMONG MEN INITIALLY FAVORING
AND MEN INITIALLY OPPOSING THE STAND TAKEN

| | PER CENT OF MEN | | | | | |
|--|------------------|-----------|------------------|-----------|------------------|-----------|
| | PROGRAM I | | PROGRAM II | | CONTROL | |
| | "one side" | | "both sides" | | no program | |
| | initial estimate | | initial estimate | | initial estimate | |
| | Less than 2 | 2 or more | Less than 2 | 2 or more | Less than 2 | 2 or more |
| No change | 45 | 46 | 41 | 56 | 65 | 56 |
| Revised estimate upward | 50 | 36 | 58 | 16 | 22 | 5 |
| Revised estimate downward | 5 | 18 | 1 | 27 | 13 | 39 |
| Net change (% up minus % down) | 45 | 18 | 57 | -11 | 9* | -34* |
| Control net change* | 9 | -34 | 9 | -34 | | |
| Net effect (program net minus control) | 36 | 52 | 48 | 23 | | |
| Number of cases in each subgroup** | 152 | 45 | 150 | 55 | 140 | 41 |

* The net changes in the two subgroups of the control represent the familiar "regression" phenomenon due to unreliable test answers (See p 329ff, Appendix D) The greater degree of regression in the subgroups estimating a war of 2 or more years is accounted for by the extent of their deviation from the average estimate of less than 1½ years

** The numbers of cases given here add to 583 instead of the total of 625 men studied because the analysis could not include the 42 individuals who failed to write legible estimates of the length of the war in either the "before" or the "after" survey. The omission of such individuals applies also to the three following tables

SUPPLEMENTARY TABLE B

BREAKDOWN OF CHANGES IN ESTIMATES AMONG MEN
WITH DIFFERING EDUCATION

| EDUCATION PROGRAM | PER CENT OF MEN | | | | | |
|--|-----------------|----------------|---------|-----------------------|----------------|---------|
| | Non-graduates | | | High school graduates | | |
| | I | II | Control | I | II | Control |
| | ("One side") | ("Both sides") | | ("One side") | ("Both sides") | |
| No change | 40 | 45 | 64 | 51 | 45 | 62 |
| Revised estimate upward | 54 | 44 | 19 | 40 | 50 | 17 |
| Revised estimate downward | 6 | 11 | 17 | 9 | 5 | 21 |
| Net change | 48 | 33 | 2 | 31 | 45 | -4 |
| Control net change | 2 | 2 | | -4 | -4 | |
| Net effect (program net minus control) | 46 | 31 | | 35 | 49 | |
| Number of cases in each subgroup* | 93 | 105 | 104 | 104 | 100 | 77 |

* See second footnote to Table A

SUPPLEMENTARY TABLE C

BREAKDOWN OF CHANGES IN ESTIMATES IN THE SUBGROUPS SEPARATED BOTH
ACCORDING TO INITIAL ESTIMATE AND ACCORDING TO EDUCATION

| EDUCATION: INITIAL ESTIMATE. PROGRAM | PER CENT OF MEN | | | | | | | |
|--|----------------------|-----------------|--------------------|-----------------|------------------------------|-----------------|--------------------|-----------------|
| | <i>Non-graduates</i> | | | | <i>High school graduates</i> | | | |
| | Less than 2 years | | 2 or more years | | Less than 2 years | | 2 or more years | |
| | I | II | I | II | I | II | I | II |
| | "One side" | "Both sides" | "One side" | "Both sides" | "One side" | "Both sides" | "One side" | "Both sides" |
| No change | 35 | 40 | 52 | 57 | 53 | 41 | 41 | 56 |
| Revised estimate upward | 59 | 60 | 39 | 3 | 43 | 56 | 32 | 32 |
| Revised estimate downward | 6 | — | 9 | 40 | 4 | 3 | 27 | 12 |
| Net change | 53 | —60 | 30 | —37 | 39 | 53 | 5 | 20 |
| Control net change* | —9 | 9 | —34 | —34 | 5 | 9 | —34 | —34 |
| Net effect | 44 | 51 | 64 | —3 | 30 | 44 | 39 | 54 |
| Number of cases in each subgroup** | 70 | 75 | 23 | 30 | 82 | 75 | 22 | 25 |

* The control net change used above to eliminate the effects of regression is the same as that used in Table A. This procedure assumes that regression was the same at the two educational levels, but it was considered a better estimate than could be obtained from the small separate subgroups of the control. In any case, chief interest is attached to the differences between the effects of the two programs, these differences are independent of the estimate of regression used.

** See second footnote to Table A.

SUPPLEMENTARY TABLE D

BREAKDOWN OF CHANGES IN ESTIMATES, AMONG MEN INITIALLY OPPOSED TO
THE STAND TAKEN, FOR THOSE WHO HAD AND THOSE WHO HAD NOT
COUNTED ON A GREAT DEAL OF HELP FROM RUSSIA

| | PER CENT OF MEN | | | | | |
|---|--|-----------------|---------|--|-----------------|---------|
| | <i>Men who had counted on a great deal of help from Russia</i> | | | <i>Men who had not counted on a great deal of help from Russia</i> | | |
| | Program I | Program II | | Program I | Program II | |
| | "One side" | "Both sides" | Control | "One side" | "Both sides" | Control |
| | | | | | | |
| No change | 46 | 48 | 66 | 45 | 34 | 64 |
| Revised estimate upward | 50 | 52 | 21 | 50 | 63 | 23 |
| Revised estimate downward | 5 | 0 | 13 | 5 | 2 | 13 |
| Net change | 45 | 52 | 8 | 45 | 61 | 10 |
| Control net change | 8 | 8 | | 10 | 10 | |
| Net effect (program net minus control) | 37 | 44 | | 35 | 51 | |
| Number of cases in each subgroup | 66 | 71 | 62 | 86 | 79 | 78 |

*THE EFFECT OF AN AUDIENCE-
PARTICIPATION TECHNIQUE IN
FILM-STRIP PRESENTATION*

IN THE usual method of presenting motion pictures or film strips, participation by the audience is limited to implicit, symbolic responses. In the experiment here reported, a technique for obtaining greater participation was introduced by requiring the audience to recite aloud during parts of a film strip, thus achieving more active rehearsal of the material by each learner.

Increased participation would be expected to result in greater learning because it guarantees overt practice of the actual responses to be learned rather than merely relying on implicit practice of symbolic responses. Participation also is likely to function as an incentive to learn, since the learner soon finds out that if he has to perform the response himself at the appropriate intervals he must try harder to learn the material as it is being presented. Since it is likely that the effects of procedures for increasing participation are achieved in part through motivational factors, the effectiveness of the participation would be expected to depend on the learner's initial motivation. For this reason in the present study the additional variable of motivation, induced by announcing an exam, was introduced in order to determine its interaction with the effects of audience participation.

PROCEDURE

1. THE FILM STRIPS USED

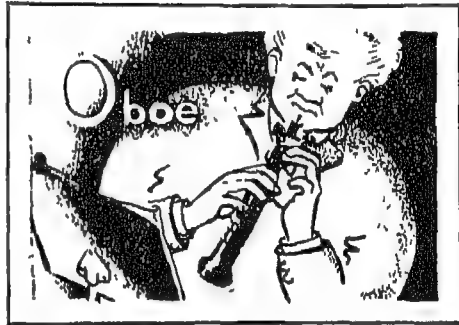
Two film strips with sound accompaniment were used in the study. The educational objective of the film strips was to teach Signal Corps men the phonetic alphabet and pronunciation of numerals. The film strip presented to the *experimental* group used the afore-

mentioned technique for increasing audience participation, the film strip presented to the *standard* group was exactly like the experimental strip in every respect except that it did not use the recitation procedure for increasing audience participation.

In both film strips, after a few preliminary frames to show the nature and importance of the phonetic alphabet, the phonetic names ("Able" for "A," "Baker" for "B," etc.) corresponding to each letter were shown in a printed list and pronounced by the narrator. Then, successively, each letter and phonetic name was presented in an individual frame showing a picture to illustrate the phonetic name, with accompanying sound effects and narration designed to facilitate the formation of an association between the letter and the name. Two illustrative frames are shown below in Figure 1.



Sound effect German band playing "O where, O where, has my little dog gone," with dogs barking
Narrator "Dog"



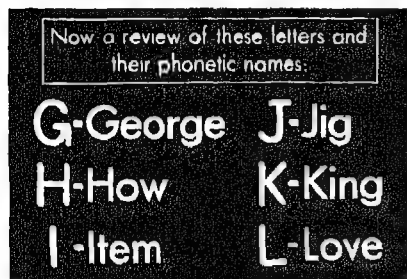
Sound effect Oboe music
Narrator "Oboe—An oboe, it's clearly understood, is an ill wind no one blows good"

Figure 1 Frames excerpted from film strips to illustrate type of presentation used

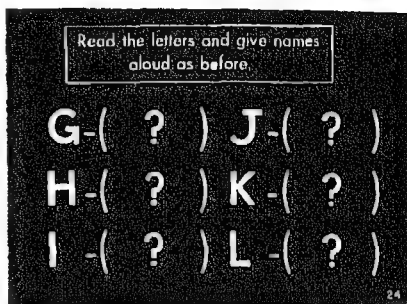
Interspersed after about every six individual frames was a frame showing a review list of the preceding group of phonetic names. When all 26 of the individual frames and the four review lists had been shown, a complete review list of all 26 letters and phonetic names in alphabetical order was shown. After a digression on the pronunciation of numerals, another complete review list, this time in scrambled order, was shown.

In all aspects described thus far the two film strips were identical in both the sound track and the frames shown. The only difference between the two was that in the "standard" film strip all *review* lists presented each phonetic name with its corresponding letter and these were pronounced by the narrator, whereas in the experimental strip the letters in the review lists were followed by question marks and

the names were to be recalled and pronounced by the audience. A correlated difference was the additional statement in the introductory narration that from time to time the audience would be asked to recite the names aloud; also, each time a review list was shown, the frame title and the narrator instructed the audience to recite the names aloud. Examples of the standard and experimental review-list frames are shown below.



Review-list frame from *standard* film strip



Review-list frame from *experimental* film strip

Figure 2. Examples of the review-list frames

In the instructions to both the experimental and the standard groups prior to the film, a very brief statement was made describing the content of the film strip they were to see and its importance as a part of a soldier's training. This approximated what would normally be said by the training officer or noncom in charge of presenting a sound film strip. The experimental subjects were given the additional instruction that from time to time they would be required to recite the phonetic names out loud, at which times they were not merely to mumble to themselves but should "sing out" so they could be heard.

2. DESIGN OF THE EXPERIMENT

The general plan of the study was to show the film strips to a number of platoon-size audiences of enlisted men, and to administer tests to the men immediately afterward, to find out how well they had learned the phonetic alphabet. By comparing the test performance of men who had seen the experimental film strip with the performance of men who had seen the standard film strip, the effects of the procedure for increasing audience participation could be evaluated.

Because motivation was expected to be a variable that would modify the effects of the participation procedure, the men were told in half of the showings that they would be tested after the film strip; the other half were told only that they were going to see a film strip that was part of their training. The purpose of this difference in treatment was to make possible an analysis of the relative value of the increased audience participation under conditions of greater and lesser motivation. Thus in this study two experimentally controlled variables were studied in combination.

For convenience, the individuals who knew in advance that they were going to be tested will be referred to as the "motivated" group, and the individuals who were not informed in advance of the test will be referred to as the "nonmotivated" group. This terminology is intended to imply nothing more than a difference in the *relative* amount of motivation expected for the two groups; there would clearly be considerable motivation operative in the "nonmotivated" group, even though they were on the average less well motivated than the other group.

The men used in the study were new recruits at a Reception Center. An important purpose in using a Reception Center was that the men had no previous military experience, "company organization" was purely temporary, and the recruits were moved through the center so fast that their entire stay at the camp was only a few days. These properties of a Reception Center were all considered important to the experiment because they insured: (1) little previous experience with the phonetic alphabet; (2) few communication lines along which knowledge of the experiment could spread among the men not yet used—particularly the knowledge that a test was given at the end of the film, which would have eliminated the motivational differences, and (3) little realization that some aspects of the experiment were not typical of the Army.

The aspect of the experiment that was particularly not typical of the Army was the method used for determining whether a man would serve in the experimental or in the standard group. A "company" roster was divided into two halves—about 100 men each—on the basis of alphabetical order, and men in the first half were ordered to assemble at one hour and the remainder to assemble at the next following hour. When each of these halves had assembled, they were lined up in a formation in which they chose their own positions. They were then counted and the half of the group on the left (about 50 men) was sent to one theater and the half on the

right was sent to the other. Since the two theaters followed a balanced pattern of alternate presentation of experimental and standard film strips, the resulting choice of experimental-group and standard-group men was a random selection of individuals rather than the usual company-unit selection used in the other film studies. To reduce any possible concern of the men about the arbitrary division as to who went to what theater, they were told that they would see a training film, but that the theaters would accommodate only 50 men. Since there was no platoon organization, the method used seemed as reasonable as any. By scheduling the two halves of a "company" for successive hours, the communication problem was further controlled. One half was marching to the theaters while the other was marching back to the company area by a different route.

Sixteen audiences of approximately 50 men each were used, the number of men totaling 742. Name and serial number were recorded on each man's test blank so that the number of years of schooling and the AGCT score of each man in the sample could be subsequently obtained from the classification office. This latter information provided a basis for equating the learning ability of the groups used for the final analysis of results and a means of analyzing the relative value of the increased audience participation of men for differing learning ability as indicated by AGCT and education.

3. THE TESTING PROCEDURE

Immediate rather than deferred testing was employed, partly in order to maximize sensitivity of the experiment to effects of the participation procedure. Introduction of a delay period between training and testing would presumably have yielded results in the same direction as those obtained with immediate testing, but with differences attenuated through intervening forgetting and possible voluntary rehearsal by individuals in both the experimental and standard groups. This would operate to reduce the effects obtained from the overt rehearsal given the former group during the training session. The rehearsal problem was particularly crucial in view of the communication problem already mentioned, especially since half of the men (the "motivated" group) were told a test would follow. If time were allowed between film and test, these men might have communicated their knowledge about the coming test to "nonmotivated" men.

Another advantage of immediate testing was related to the stated purpose of the film. According to the film-makers the function of the film strip was to give preliminary familiarization with the phonetic alphabet and an opportunity to learn it well enough to be able to carry out further rehearsal. Extensive further drill would of course be required to attain high proficiency in the use of the alphabet in later field situations, but presumably Signal Corps men would have strong motivation to rehearse the material afterward. The purpose of the film was to provide sufficient learning to permit further effective practice.

Five men from each of the sixteen audience groups were given *individual oral tests* of their ability to recall the phonetic names. In these tests each letter was presented singly as a visual stimulus stamped in large type on a card, and the men were required to respond orally with the phonetic name. The correctness of each response was recorded and the time required for a man to give his response was timed by stop watch, with a limit of 15 seconds for each letter.

Space and personnel limitations forced the number of the individual tests to be smaller than might have been desirable. Ten individual testers, made available by the camp's classification office, were used for each hour of the experiment. The number of individuals tested was therefore limited to 5 men from each audience, or a total of 80 from the 16 audiences involved. The men to be tested individually were selected in such a manner as to give roughly equivalent distributions of education in the four experimental conditions. The rest of the men in each audience group were given a *written test*. In these tests the men received a sheet with a mimeographed list of the letters, with blanks beside each letter for writing in the phonetic names.

Both types of tests presented the twenty-six letters of the alphabet in a random sequence. Varied orders of presentation were used in a balanced fashion in testing different subjects, there being five different test orders in all, used with equal frequency.

RESULTS

The results obtained with the individual oral tests will be presented first, followed by presentation of relevant portions of the data from the written tests. Conclusions from the two sets of data were in all cases in agreement as to direction, but differences were

smaller in the case of the written tests. Use of the oral-test data was considered preferable because of the superior sensitivity and realism of this measure.

The individual tests were more *sensitive* both because the measurement of the exact time taken by each individual to recall each letter is a precise measure of learning and because the individual administration provides better control of the conditions of testing. The individual tests were more *realistic* in that they more closely approximated the conditions under which the phonetic alphabet would actually be used, that is, with men making an oral response to each individual letter. However, since only 20 men were given oral tests for each of the four conditions of the experiment, presentation of the written-test results has been included when recourse to these data was necessary to afford a sufficient number of cases in some of the subgroups used for analysis.

An important difficulty of the written test was the opportunity given the men to divide up the time allowed in such a way that an individual could concentrate much more time on the phonetic names he had difficulty in remembering. Another factor was the possibility that additional cues were provided by being able to see all the letters at once and to see all the names that had been remembered and written in. This supposition is supported by the finding that the smaller differences among the experimental groups taking the written tests were accompanied by a considerably higher average performance on the tests.

RESULTS FOR INDIVIDUAL TESTS

1. OVERALL EFFECT OF PARTICIPATION

Figure 3 gives a comparison of the individual-test results for men who saw the experimental film strip and for men who saw the standard film strip. The difference in performance represents the effects of the increased audience participation provided by the active nature of the reviews in the experimental strip. The curves in the chart show the average number of phonetic names remembered correctly with various limits on the time interval allowed to remember each phonetic name. These results are for men who did not know in advance that they would be tested after the film strip (the "non-motivated" group). This was the group which was shown the film strip under conditions typical of use in the Army—that is, with no test announced. Comparison with the motivated group will be made later.

The figure shows that there was a marked superiority in the test performance of men who had seen the film strip with the active participation technique. This superiority shows up at each of the various time intervals that could be used as the limit allowed for thinking of the phonetic name after being shown each letter

From the standpoint of actual use of the phonetic alphabet, proficiency should probably be such that every name can be recalled almost immediately when the letter is shown. To approximate these conditions, a two-second time interval was used as one criterion of effectiveness. Within this time limit it is seen from Figure 3 that

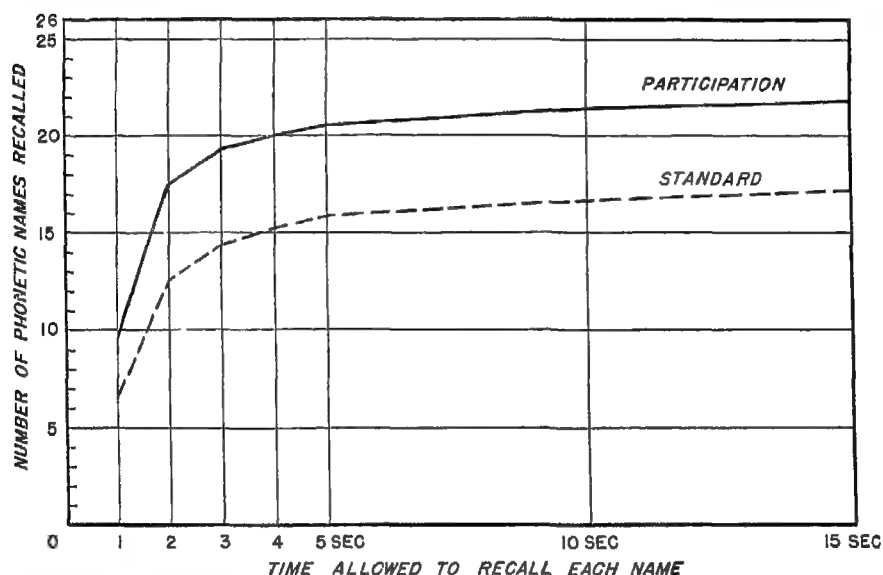


Figure 3 Average number of phonetic names correctly recalled within designated periods of time per name

the men who had active participation recalled an average of 17.6 phonetic names or about 68 per cent of the 26 names, whereas the men who had the standard form of the film strip recalled an average of 12.6 names or only about 48 per cent. Thus the technique for increasing audience participation increased the number of words learned *proficiently* from a level of 48 per cent to a level of 68 per cent

From another standpoint, the training objective of the film strip was to provide sufficient memory of the correct phonetic names to permit their being recalled and practiced later. A single showing of the film strip would not be expected to teach the

phonetic alphabet to the level of complete proficiency. From this standpoint a longer time limit for remembering each phonetic name would be desirable in evaluating the training value of the increased audience participation. Preliminary oral tests indicated that very few names required more than 15 seconds to be recalled if they could be recalled at all. Therefore in the conduct of the individual tests in the main experiment the men were given a maximum of 15 seconds in which to try to recall the phonetic name after each letter was presented. It can be seen in Figure 3 that there was very little gain during the last 5 seconds of this interval. With the 15-second time limit as a criterion, the data show that men who saw the active-participation strip learned an average of 21.9 out of the 26 names, whereas men who saw the standard form of the film strip learned an average of only 17.2 names. In other words, when a 15-second criterion is used for recall of each name, the active participation procedure increased the amount of learning exhibited from a level of about 66 per cent of the names to a level of about 84 per cent.

TABLE 1

EFFECT OF PARTICIPATION ON NUMBER OF PHONETIC NAMES RECALLED

| | WITHIN 2 SECONDS AFTER SEEING LETTER | | WITHIN 15 SECONDS AFTER SEEING LETTER | |
|---------------|---|--------------------------------|--|--------------------------------|
| | <i>Mean number recalled</i> | <i>Percentage recalled</i> | <i>Mean number recalled</i> | <i>Percentage recalled</i> |
| Participation | 17.6 | 68% | 21.9 | 84% |
| Standard | 12.6 | 48 | 17.2 | 66 |
| Difference | 5.0 | 20% | 4.7 | 18% |
| | $t = 3.5, df = 38$ | | $t = 3.0, df = 38$ | |
| | $p < .01$ | | $p < .01$ | |

The results showing the effectiveness of the participation procedure from the two points of view are summarized in Table 1. A test for the significance of the effect of audience participation is also shown in Table 1. It can be seen that the mean differences in number of phonetic names given correctly by standard and participation groups are highly reliable at both the 2-second and the 15-second criteria.

2. VALUE OF ACTIVE PARTICIPATION WITH MATERIAL OF VARYING DIFFICULTY

Some of the phonetic names were more easily learned than others. For example, "X-ray" for "X" was remembered by a higher pro-

portion of the men than "Tare" for "T." By dividing the 26 phonetic names into an easier half and a more difficult half on the basis of combined test performance with both film strips, a comparison could be made of the relative gain from increased audience participation with the easier names as compared with the more difficult names. Figure 4 shows the results of this comparison for the individual tests, using the 15-second time limit.

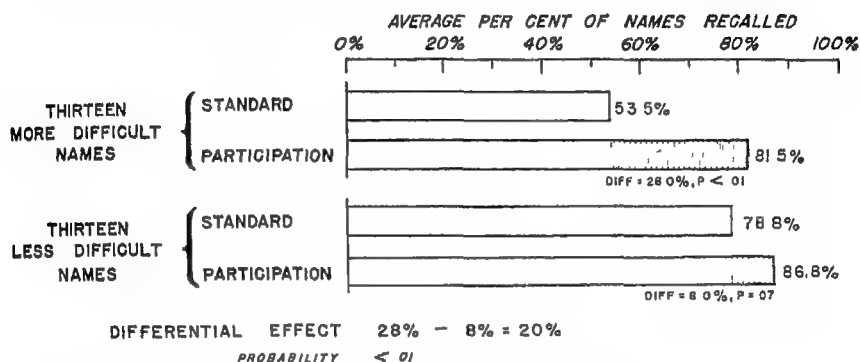


Figure 4 Average per cent of easy and difficult words learned.

In the analysis of the results as a function of ease or difficulty of the material, the problem of equivalence of units arose—is an increment of one phonetic name as a result of audience participation the same for easy as for difficult items? Without participation, the average was about 14 names for difficult items and about 20 names for easy items. Since the initial level is different, some ratio (e.g., per cent improvement, per cent reduction of wrong answers, etc.) might be appropriate. While such proportional measures might be meaningful, the measure used for analysis in the present study was the actual number of words answered correctly.

The above comparison shows that the gain from the increased audience participation procedure was much greater with the more difficult half of the phonetic alphabet. The effect attributable to participation was small and not very reliable for the easy material, but it was large and highly reliable for the difficult material. The difference between the effects (differential effect = 20%) was also highly reliable.¹ The results indicate that *active participation is most important when the material to be learned is most difficult.*

¹ The reliability of the mean differential effect was tested from the distributions of differences between each man's score on the 13 "easy" items and his score on the 13 "difficult" items. The mean difference was 3.3 words for the standard group and 0.7 words for the participation group. The difference between these would have arisen by chance less than one time in a thousand.

3. EFFECT OF INCENTIVE ALONE ON AMOUNT LEARNED

As mentioned earlier, the men in half of the audience groups were told in advance that they would be tested subsequently on the material, while half of the audiences were not told. The effect of the added motivation to learn provided by the announcement of the quiz can thus be analyzed without regard to its interaction with the participation procedure. The relevant group for this analysis is the standard group which did not actively participate since the active participation technique was not typical of the Army training films and film strips.

In the instructions the men were told: "During this hour we're going to show you training slides on the phonetic alphabet. The slides will be projected on this screen. There is a recording that plays along with the slides and explains each one. The phonetic alphabet is an important part of military training, so pay close attention."

In half of the audience groups (the "motivated" groups) the following additional announcement was made: "After the training slides have been shown, we will pass out a test paper to each of you. We are going to give each of you a test to see how much you have learned. It's to your own advantage to do as well as possible, so be sure that you pay close attention to the training slides and learn as much of the phonetic alphabet as you can."

The chart below, using the 15-second criterion and the standard group, shows the average amounts learned by the men who were told in advance that they would be tested, compared with the amounts learned by those who were not told in advance about the test.

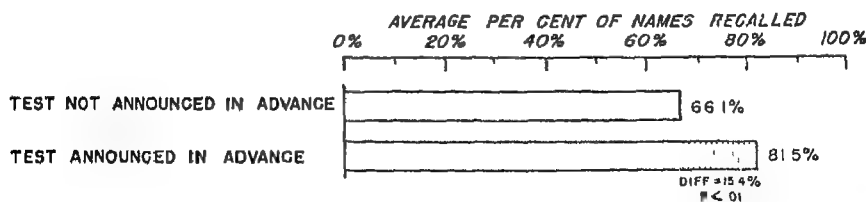


Figure 5 Effect of added motivation on amount learned

It can be seen in the chart that the announcement of a test significantly increased the amount of material learned under standard conditions.

4 VALUE OF ACTIVE PARTICIPATION WITH AND WITHOUT INCENTIVE

Active audience participation is one way of insuring that the task to be learned is actually rehearsed by the audience members. However, under conditions of high motivation the audience members may rehearse the material to themselves as it is presented even though overt rehearsal is not formally required. Thus, if there is a high level of motivation to learn, relatively little additional benefit from audience participation may be obtained. Under these conditions the amount of additional benefit of active participation would depend mainly on the relative advantage of overt practice as contrasted with only implicit or symbolic rehearsal.

Figure 6 compares the percentage of words learned with and without active participation for men who did and who did not have advance announcement of the test. As before, these results are based on the 15-second criterion.

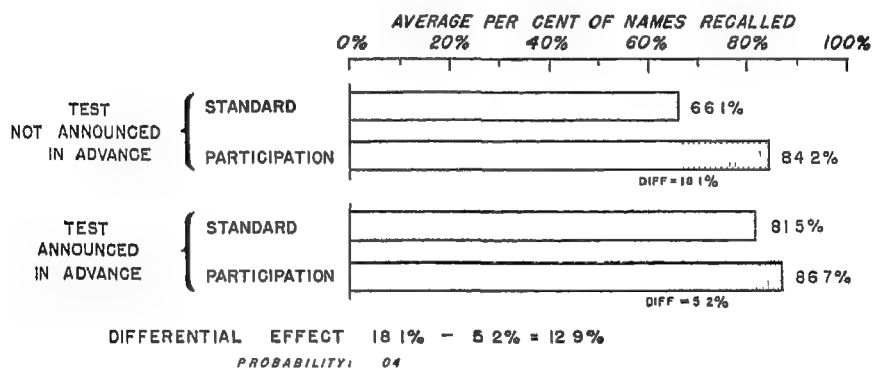


Figure 6 Amount learned by active-participation and control groups, under two conditions of motivation

As anticipated, the difference between the active-participation and standard procedures was less when the men were motivated by knowledge that they would be tested. The difference of 18.1 per cent for the nonmotivated group is considerably larger than the corresponding difference of 5.2 per cent for the motivated group. Second-order differences as large as this in the expected direction would occur only about four times in a hundred. These results indicate that *active participation is most important when individuals are least motivated to learn.*

RESULTS OF WRITTEN TESTS

From the 662 men who answered the written tests, four groups—one for each of the four experimental conditions—were selected so as to be exactly matched by education and AGCT category. This stratification resulted in a reduction of the total group from 662 to 504, or 126 men in each of the four groups.

As stated earlier, the results of the written tests conformed in every respect to the findings of the individual tests except that in the written tests the average number of phonetic names answered correctly was higher under all conditions and the differences between active participation and standard forms of the film strip were smaller. Since only two minutes or less are required to write in all of the phonetic names, if they are well learned, the ten minutes allowed for the written test permitted the men to go back and fill in names not initially remembered but recalled at a later point in the series. However, the ten-minute time interval rather than a shorter period was required to minimize any tendency for the men to try only a portion of the letters because of lingering too long trying to think of one they could not remember easily.

1. VALUE OF ACTIVE PARTICIPATION AT DIFFERENT LEVELS OF ABILITY

The number of men tested individually was too small to permit subdivision according to initial learning ability. However, this analysis was made for the larger sample who took the written tests. As noted earlier, each man wrote on the test sheet the number of years of schooling he had completed. He also signed his name and serial number, so his AGCT score could later be obtained from the personnel records. AGCT scores were used as the best available measures of the men's learning ability.

When test performance was analyzed according to AGCT scores it was found that *the less intelligent groups profited most from the increased audience participation*. It was found that AGCT groups I, II, and III all gave fairly similar results, but the results for groups IV and V differed markedly from those for the upper three groups.² The results for this breakdown into "more intelligent" (classes I, II, and III) and "less intelligent" (classes IV and V) are shown in Figure 7. The results are for the standard conditions in which the

² There were very few cases in groups I and V, so the analysis was essentially of groups II, III, and IV

men were not motivated by the knowledge that they would be subsequently tested. The AGCT breakdown subdivides the 126 men in the active-participation group and the 126 men in the standard group into 101 "more intelligent" men and 25 "less intelligent" men per group.

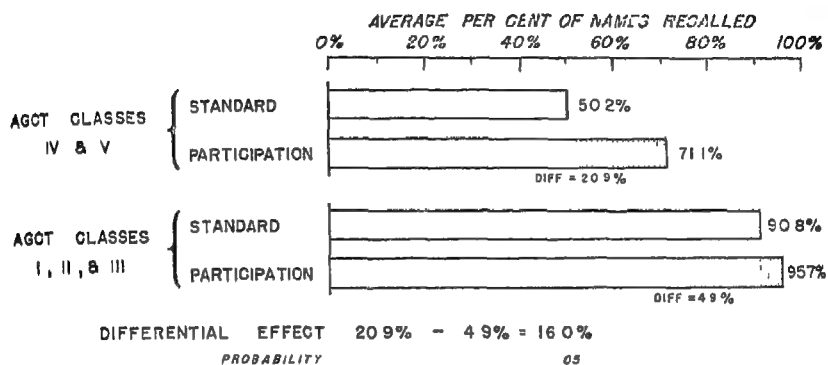


Figure 7. Comparative contributions of active-participation procedure for those of different intelligence levels.

It is seen in Figure 7 that the differential effect on the two intelligence groups is 16 per cent. The critical ratio of this second-order difference was 2.0, indicating a difference that would occur in either direction by chance about five times in 100.

2. EFFECTS WITH DIFFICULTY, MOTIVATION, AND ABILITY OPERATING IN COMBINATION

The preceding results have shown separately the value of the increased audience participation procedure under varying conditions of difficulty of material, motivation to learn, and learning ability. By dividing the results into the appropriate subcategories of all three of these variables, their effects when operating in combination can be seen. Figure 8 shows these effects of participation—that is, the *differences* between amount learned under active participation and under standard conditions—for all the different subcategories.

It can be seen from Figure 8 that the importance of audience participation increased cumulatively as a function of each of the factors analyzed. Active participation was most effective when intelligence and motivation were lower and difficulty was greater. At the one extreme, the more intelligent men (regardless of motivation) benefited only 3 per cent from participation on the easy words; at the other extreme, the less intelligent, nonmotivated men

showed an increase due to participation of 23 per cent in the case of the difficult material. Thus the participation procedure tended to bring the amount learned under all conditions up toward the level ordinarily achieved only under the most favorable circumstances. Another way of describing the results is that the participation procedure helps most where it is most needed, that is, where individuals with little ability or motivation are learning difficult material.

It will be noticed that the results presented in Figure 8 are in terms of the gains attributable to participation, and do not show

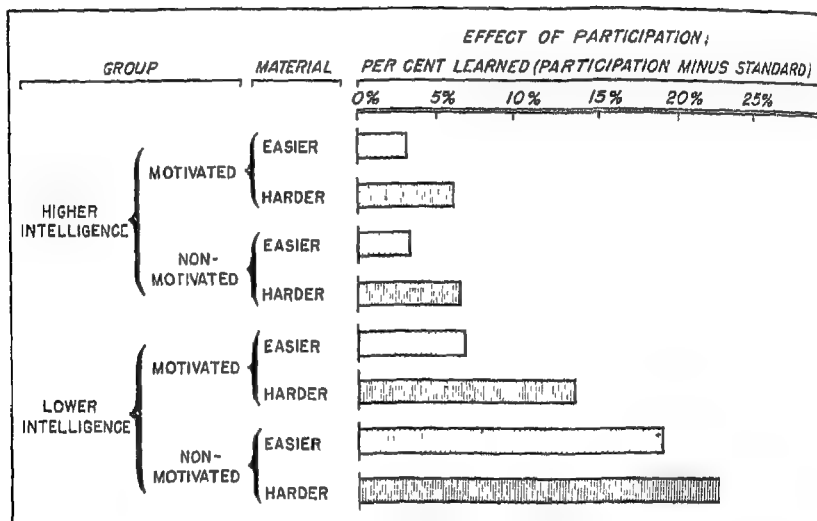


Figure 8. Contribution of audience participation as a function of intelligence, motivation, and difficulty of material

total amounts learned. The total amount learned was, of course, greatest for the intelligent, motivated men in learning easy material, and least for the unmotivated, unintelligent men in learning difficult material. Thus the results, as presented, do not take into account a "ceiling effect" due to the fact that the maximum amount of gain possible from participation varied from condition to condition. The reason for presenting the results in this form—without taking the ceiling factor into account—is because the picture as shown seems more meaningful in terms of educational objectives. A gain from 95 per cent without participation to 98 per cent with participation, which was obtained for motivated intelligent men in learning easy material, is a gain of 60 per cent when one divides the

3 per cent increase by the 5 per cent maximum possible gain. But while such a large relative improvement may be of theoretical significance, it would probably be of much less interest to an educator than the increase from 44 per cent without participation to 66 per cent with participation which was obtained for unintelligent, unmotivated men with difficult material.

The question arises as to what extent the findings reported in this chapter are of general applicability. It seems a fair assumption that the device of reciting aloud can probably be used with about equal effectiveness for other films of the same general character as the one studied—i.e., films in which the learning materials are simple paired associates, such as might be used in teaching the vocabulary of a foreign language, a new nomenclature, recognition of aircraft types, and the like. But the recitation procedure as here used would seem less readily applicable to films having other kinds of learning objectives—for example, those involving motor learning or substance learning rather than rote memorization. An important problem is therefore to determine what alternative procedures might be used in such instances to utilize the same basic factors that are responsible for the demonstrated effectiveness of participation. Here the crucial question is: What are the “basic factors” that account for the results obtained with the present procedure of reciting aloud? The answer to this question determines what alternatives to reciting aloud would be suggested where group recitation is not appropriate.

In terms of learning theory, several factors can be mentioned as possible contributors to the advantages of active participation. These are discussed in the following paragraphs.

Direct rehearsal. The worst aspect of passive “learning” is that the learner may not actually be practicing any relevant responses. He may be daydreaming or he may be making some irrelevant observations concerning the material presented. Active participation is one way of insuring that the learner actually practices relevant responses that will be needed in later performance.

In the present experiment the response practiced during participation was identical with the response to be learned—that is, saying the correct phonetic name—so that the concept of “direct rehearsal” is entirely appropriate. However, it is apparent that in many cases little could be done to get *direct* rehearsal during actual film instruction where the responses to be learned were nonverbal ones. Occasionally such direct participation might be feasible—for example, in a film about the use of the slide rule the audience members might

be given slide rules to manipulate as per instructions during the film showing. But probably in the majority of film subjects the responses to be learned could not be directly rehearsed during the film. Instead, symbolic responses must be learned during the film showing and later translated into the response to be performed. In such cases the problem is inevitably one of "transfer of training"—the symbolic responses learned during passive instruction must subsequently "transfer" to the actual responses which are the object of instruction. In such a case, the "active participation" procedures available are those which insure that relevant symbolic responses are practiced during the film showing. Thus even though active practice of the overt act is not possible, participation procedures that insure rehearsal of appropriate symbolic responses could still be employed.

A relevant consideration in the problem of transfer from symbolic response to overt responses is the ease with which the symbolic responses learned can be translated into the desired performance. Even with active participation in the learning of the symbolic responses, little transfer to actual performance would be expected unless the symbols are readily translated into the desired overt action.

In the study reported in the present chapter these problems of translating symbolic responses into action did not arise. The overt response was in this case itself a symbolic response—a word—and there is little reason to believe that the implicit vocalization of a word differs much in form of response from its overt vocalization. Thus in the present case we probably have an example of nearly perfect transfer of the symbolic response into overt action. This feature of the present subject, however, makes it unrepresentative of many instructional films.

A related aspect of the problem of transfer of training is the advantage of having present during training a stimulus situation closely approximating that in which the response is subsequently to be performed. This is an important advantage in the typical "learning by doing" situation, but it offers real difficulties in the case of film instruction where, aside from what is seen on the screen and heard on the sound track, the stimulus situation is one involving passively sitting still in a darkened room. However, the important factor of connecting the correct response to cues that are later to elicit it might often be taken into account in a movie by use of scenes that duplicate as many elements as possible of the stimulus situation in which it is desired that the response be elicited later. In the

present experiment this was done by using review frames in the film strip which showed the letters of the alphabet without accompanying them by the correct word. Thus, unlike the passive control group, the active learners saw only the stimulus letter and had practice reciting the phonetic name while seeing the letter presented alone—a situation which tends to duplicate the conditions under which performance was to be required later.

Motivation. A perhaps less obvious basis for advantage in the active participation procedure is a motivational factor that appears to be involved. What is the effect on the learner of being required to reproduce the material to be learned? If he has a desire to avoid seeming stupid, the effects of active recitation or active participation should be to make him apply himself more diligently during the passive parts of the presentation. In other words, a likely effect of the participation procedure is to provide a series of "examinations" in which the learner is immediately required to show what he has learned. If his "ego" is involved in his ability to learn—that is, if he is shamed by poor performance—these "examinations" should produce an additional motivation to learn. This may be particularly true in the case of the procedure used in the present study, in which audience members recited aloud: each subject would be aware that his immediate neighbor could tell whether or not he had remembered the correct phonetic name. The present findings fit in well with the expectations from the postulated operation of a motivational factor in that when an independent source of motivation was applied the participation procedure had relatively less effect.

Although the factors of direct rehearsal and motivation have been discussed separately, it may be that they actually achieve their effects through the same mechanism. In each case the critical factor could be the rehearsal of the response to be learned. In typical human learning situations it seems very likely that the effectiveness of "motivational" procedures is in part brought about by the fact that they provide incentive for practice. Nothing is learned without some practice, and the individual who has no incentive to practice will therefore not be expected to learn. The procedure of participation and the procedure of announcing a test may simply be alternative ways of getting the subjects to practice the correct symbolic responses during the film showing. Furthermore, the efficacy of the participation procedure may lie in part in the motivating effects of these recitations on the learner's subsequent implicit prac-

tice as the material is presented in later portions of the film, rather than being entirely due to the practice occasioned during those portions of the film in which the subject is required to recite aloud

The results obtained in the present study and the foregoing theoretical considerations have a number of implications for those engaged in the preparation and use of instructional films. The most obvious implication is that, to the extent possible, the actual response to be learned should be actively practiced during the film showing. If the actual response to be learned cannot feasibly be practiced during the film showing, appropriate symbolic responses should be actively practiced, the most appropriate symbolic responses being those most readily translated into the overt responses the film is attempting to teach. Further, the film should as nearly as possible duplicate, in its visual and auditory presentation, the stimulus situation in which the audience members later will be expected to perform the responses to be learned. Finally, since it is theoretically possible that motivational devices achieve all of their effects through providing an incentive to practice, attention should be given to insuring that whatever incentives are provided actually lead to the practice of appropriate responses. The motivation should not just provide a "motive to learn", rather, it should provide an incentive to perform (as voluntary "active practice" during the film showing) implicit or overt responses that will transfer readily to the performance situation that defines the objectives of the film.

At the present stage of knowledge, these implications serve mainly as guiding principles rather than as "rules of thumb" that can readily be applied in the preparation and utilization of instructional films. They leave a considerable need for ingenuity and good intuition in successfully applying them to a particular case. It is expected, however, that as research findings accumulate as to what particular devices are successful in achieving the desired effects, these general principles will break down into subprinciples that can be more directly applied to a particular film.

SUMMARY AND EVALUATION

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ONE of the primary tasks of the Experimental Section of the Research Branch was to provide evaluations of the motion pictures prepared by the Information and Education Division of the Army. These films included the "Why We Fight" series, designed for indoctrination of members of the Armed Forces concerning the events leading up to American participation in the war. In addition, a number of experiments were carried out in cooperation with other divisions of the War Department to study training films.

The experimental studies of the "Why We Fight" films constituted a large-scale attempt to utilize modern socio-psychological research techniques in the evaluation of educational and "indoctrination" films. The methods used in these studies and the results obtained are described in the present volume in the belief that there will be increasing use of such procedures both for determining whether motion pictures and similar media really do succeed in attaining their objectives and for modifying the products in accordance with the results obtained by research.

RESEARCH DESIGN

The principal criteria of "effectiveness" used in evaluating these films were whether they succeeded in imparting information, in changing opinions in the direction of the interpretations presented, and in increasing men's motivation to serve. It would have been of considerable interest to use changes in overt behavior as an additional criterion of effectiveness. It would have been interesting, for example, to find out whether troops who had seen the "Why We Fight" series would have been more highly motivated in combat than those who had not. But it was not found possible to set up such long-range experiments as would be involved in answering such a question. At the same time, no acceptable behavioral index of "morale" or motivation to serve was developed that could be used in determining the relatively immediate effects of films. In only

one study was an overt behavioral criterion possible—in a study where the purpose of the film was to teach a verbal response and it was not difficult to use overt verbal responses as the criterion. This was the study reported in Chapter 9 concerning the effects of “audience participation,” in which actual performance in using correctly the letter-name associates in the phonetic alphabet was used as the criterion of effectiveness.

While it was not possible to use overt *behavioral* changes as criteria in testing most of the films, the criteria used were nevertheless such as to reveal actual *changes* produced in the audience by the films. For example, the “Why We Fight” films were evaluated in terms of the extent to which factual knowledge and opinions concerning the war were altered by seeing the film. This criterion contrasts with others commonly used in programs of public information and education. Most frequently no check is available save the fact that a certain quantity of material was prepared and released. In the case of newspaper and radio media, such data are commonly supplemented by market surveys to determine readership or listening indices, since it is realized that unless the material is seen or heard it cannot become effective.

In commercial motion-picture research the most important criterion is usually the “box office,” commonly predicted from “previews” in which audience approval is the crucial criterion. This criterion is obviously much less relevant in the case of educational and informational films of the type studied here. However, on the grounds that unless interest is aroused close attention is not apt to be achieved in educational films, most studies did obtain information about soldier evaluation of the films both through questionnaires and through interviews. Here the purpose was to supplement the findings on the film effects—that is, actual changes produced—with evidence concerning things liked and disliked about the film. In the informal interviews conducted for this purpose an attempt was made to get ideas for product improvement. This turned out to be quite unproductive of suggestions. The men readily enough expressed liking or disliking for the films but were quite inarticulate as to their reasons and had few suggestions of ways in which the films could be improved.

In other studies, interest was the only response considered relevant; these studies were concerned with films whose objective was described as that of satisfying the interests of the soldiers. For these studies, more elaborate methods of recording interests were

used, including use of the "program analyzer"—a polygraph record of "likes" and "dislikes" registered during the presentation of the film—which is familiar as a technique for recording audience evaluation of radio programs.

It is clear that the amount of interest or extent of approval provides only supplementary information about a film with an educational purpose and does not constitute a measure of its effectiveness at achieving its educational objective. Even intensive interviewing of sample audiences "to get their reaction" to detailed aspects of the material presented was found to be misleading as an indication of what effects were produced. What appeared to be an "effect" of the film often turned out, when the results of the controlled experiments became available, to be a reaction as prevalent among men in general as among those who had seen the film.

It was necessary to develop new techniques for the purpose at hand. Earlier studies had either restricted their measurement to information tests or had used only a few attitude scales to determine overall effects. For the present purposes, information tests were necessary but a much more comprehensive analysis of opinion change was fundamental. The objectives of the orientation program encompassed a large number of areas of belief, and considerable effort was devoted to developing measuring instruments and studying the interrelation between the various opinion scales used. In some studies as many as a dozen scales of opinion were necessary in addition to miscellaneous single opinion items and a battery of information test items. It was also desirable to investigate the interrelation of opinion changes produced by the films. A number of methodological problems were encountered in these attempts to analyze opinion changes as a function of other opinions and other changes.

The general procedures used in the investigations are described in Chapter 2. The starting point was a content analysis of the film to be studied, together with intensive discussion with the individuals preparing the script as to their objectives in producing the film. The success of measurement was felt to be directly related to the precision with which the intended objectives were formulated. Unfortunately, in the case of the orientation films precision was sometimes lacking in the definition by the producers of what their films were intended to accomplish. As a result the criteria used in evaluating these films were the overall objectives of the orientation program, combined with inferred objectives based on the content

analysis of the films as an index of what the producers were trying to accomplish.

On the basis of the above information, tentative fact-quiz and opinion items were developed. These were then pretested for interpretation and intelligibility by including them in intensive interviews with typical soldiers. The importance of this step in the process can hardly be overestimated. After any revision necessitated by this procedure, a "dress rehearsal" was employed in which questionnaires containing the revised items were administered as an "opinion survey" to soldier groups. The results from this step, the "quantitative pretest," enable advance analysis of the interrelation of opinions and the discarding of items which would be insensitive to change because either a very large or very small proportion selects the key response.

After revision in the light of the qualitative and quantitative pretests, the questionnaires were employed in the actual film evaluations. The typical procedure involved administration of questionnaires to two comparable groups before and after the presentation of the film to one of the two groups. The group shown the film constituted the "experimental" group whose responses reflected the effects of the film. The other constituted the "control" for any changes in knowledge or opinion that might have been occasioned by events external to the film presentation. An alternative procedure used in some studies has been termed the "after-only" procedure. In this procedure the administration of the questionnaire before the film showing is omitted. Here the control group reveals the knowledge and opinion of a group which has not yet seen the film and the experimental group reveals the knowledge and opinion of a comparable group after exposure to the film.

Each of these two alternative procedures was found to have its advantages and disadvantages. The "before-after" procedure—with administration of the questionnaire both before and after the film showing—requires special precautions to prevent the first questionnaire from revealing the purpose of the study and from biasing the answers obtained in the second. But it has definite advantages in permitting more detailed analysis of effects and compensation for inequalities between the groups arising from lack of random sampling in selecting control and experimental groups. In the present studies, completely random sampling was not possible—instead, to get naturalistic conditions of film showing, it was necessary to sample by company units rather than to use random selections of indi-

viduals. In the early studies it was not known to what extent this would lead to lack of comparability between control and experimental groups. As it turned out, the methods used by the Army in assigning men to companies were in most cases essentially random, that is, company units were found to differ in most cases no more than would be expected in random samples of about 200 men (the typical size of a company). In the earlier studies, both the "before-after" procedure and the "after-only" procedure were used in testing the same films. Because of the apparent comparability of the results obtained with the two procedures and because of the general lack of wide variation from company to company, the "after-only" procedure was considered sufficient in some of the later studies. It is to be remembered, however, that the "after-only" procedure always sacrifices completeness in the description of changes produced because it cannot isolate individual changes in opinion. The relative advantages and disadvantages of the two procedures are discussed in Appendix C.

In testing the orientation films, an interval of about one week was allowed before administration of the "after" questionnaire. At the outset of the orientation film studies the experimenters more or less implicitly assumed that effects would be maximal immediately after the film showing and that opinion changes as well as learning of factual knowledge would show a forgetting curve as time passed after the film showing. The standard time interval of about one week after the film showing as the interval before testing for effects was adopted simply on the grounds that it was judged a sufficiently long lapse of time to be on the more flat portion of the forgetting curve. It seemed that waiting a week would avoid including any transient immediate effects in the evaluation of the extent to which the film achieved its purpose. Eventually a systematic study was set up to test the assumptions involved in the use of the one-week interval. The results, which are described in detail in Chapter 7, indicated that while the expectation of gradual decrement with time appeared justified in the case of factual information, there was a tendency for many opinion items to show increments rather than decrements with the lapse of time. This finding is of considerable theoretical and methodological interest and will be discussed later in the present chapter.

One of the principal methodological problems revolved around the necessity of making measurements of the individual's opinions in such a way that they would be represented without bias and ob-

tained without the individual's knowing that the measurements were connected with the showing of the film or part of an experiment. As discussed more fully in Chapter 2, many precautions were required to insure that this bias was avoided. A procedure that let the men know the effects of the film were being studied might have led to "Army-approved" answers rather than honest answers to opinion questions. Therefore, complete anonymity was maintained and the questionnaires were presented as having a purpose very different from the actual one of testing the film. In using the "before-after" procedure, it was particularly important to prevent the first questionnaire from being recalled when the film was subsequently shown and to prevent the repetition of the questionnaire after the film from suggesting to the men that a test of the intervening film was in progress. To prevent this, the second questionnaire was "revised" as much as possible and it was necessary to provide a carefully worked out rationale for the administration of a second questionnaire similar to the earlier one.

Another methodological problem that must be solved for an evaluation experiment to be maximally useful is insuring that the conditions of the experiment closely approximate those under which the product is later to be used. This was rather easily achieved in the Army situation. Attendance at training films and orientation films was compulsory in the Army, so attendance at the films tested was as close to 100 per cent as possible, exceptions being those on sick call, those on leave, and those on various special duties such as KP. The important point here is that self-selection was kept at a minimum without introducing any procedure that seemed out of place. The groups used attended the films as part of their regular training, and while attendance was compulsory it was in this respect no different from any other aspect of Army life. This handled neatly one of the bugaboos of civilian media research in which either those who attend a film showing are self-selected for initial interest in such a way as to make results obtained for them very atypical of the entire population, or in which a certain degree of unusualness is introduced by forcing individuals to attend.

Several problems of method also arose in connection with expressing the amount of change in information or opinion produced by the films. The procedure used in the studies expressed effects in terms of the percentage of individuals affected on each questionnaire item. Measurements were not made in terms of changes in the degree of

conviction with which an individual held the particular opinion. A particular statement of opinion was agreed upon for each opinion question as the opinion consonant with the objectives of the orientation program, just as a particular answer was designated as the correct answer to fact-quiz items. Effects were then measured in terms of the difference in the percentage of individuals endorsing this statement before and after the film.

In expressing the amount of change produced by a film, a straight percentage difference between film and control groups was found to have certain limitations. While the percentage difference in the number knowing a particular fact or endorsing a particular opinion may provide an adequate description of a single effect, it leads to difficulties when different effects are compared. The difficulty arises because of a ceiling that is placed on the size of an effect by the initial percentage picking the key response. Thus if 90 per cent initially chose the key response, only a 10 per cent change is possible, whereas if 10 per cent initially chose the key response, the maximum possible effect is a 90 per cent change. This is particularly important in comparing different groups with differing initial levels or in comparing different effects where the questions used for different effects start at different initial levels. Thus the problem arises when one attempts to compare a change from 50 per cent to 60 per cent in those knowing the correct answer on a fact item among the less well educated with a change from 80 per cent to 90 per cent on the same question among the well educated. In each case, the change is 10 per cent of the total group, but the less well educated increased only 20 per cent of the total possible change whereas the better educated increased 50 per cent of their total possible change. In other words, 50 out of 100 poorly educated men did not know the correct answer, and of this 50, 20 per cent learned the correct answer from the film. On the other hand, only 20 out of 100 well-educated men did not know the correct answer, and of these 20, 50 per cent learned the answer from the film. To permit comparisons of change with differing initial percentages, an index—labeled the "Effectiveness Index"—was developed. This index measures the percentage change occurring as a function of the total possible change. In essence, this index is defined by the following formula:

$$\text{Effectiveness index} = 100 \times \frac{\text{Change obtained}}{\text{Maximum change possible}}$$

More specifically, when the "after-only" procedure is used and the effect to be expressed is an increase in the percentage giving a particular response, the effectiveness index is:

$$E. I. = 100 \times \frac{\text{Film \% minus Control \%}}{100 \% \text{ minus Control \%}}$$

It can be seen that this index permits comparison of effectiveness for opinions that differ in initial acceptance level, for subgroups that differ in initial acceptance level, and so forth, and the size of the effects calculated is not restricted by the original percentage subscribing to the particular opinions. The chief disadvantage is that so far its sampling distribution has not been satisfactorily worked out. A check on statistical significance of an effect can of course be obtained from the straight percentage difference test for the group as a whole, but this does not permit determining whether two effectiveness indices differ significantly.

It should be noted that the "effectiveness index" takes into account only the statistical ceiling introduced by the approach of the initial level to 100 per cent. Other ceiling effects, which the effectiveness index is not designed to take into account, are produced by psychological factors discussed in Chapter 3, such as the likelihood that when the initial acceptance of an opinion is high (e.g., 90 per cent accept the opinion and only 10 per cent hold a different opinion), the few individuals who differ in their opinion are "die-hards" who would be especially resistant to change. A further psychological factor that is not taken into account by the effectiveness index is the likelihood that an extremely unpopular opinion also reflects special resistance to change. Thus an opinion held by only 10 per cent of the general population will very often be one that the population is predisposed *against* believing, and, therefore, especially resistant to change by a film.

RESULTS OF EVALUATIVE RESEARCH

Results of the research on one of the orientation films, "The Battle of Britain," are described in considerable detail in Chapter 2, and general conclusions derived from the series as a whole are discussed in Chapter 3. The results may be briefly summarized as follows:

The films had marked effects on the men's knowledge of factual material concerning the events leading up to the

war. The fact that the upper limit of effects was so large—as for example in the cases where the correct answer was learned and remembered a week later by the majority of the men—indicates that highly effective presentation methods are possible with this type of film.

The films also had some marked effects on opinions where they specifically covered the factors involved in a particular interpretation, that is, where the opinion test item was prepared on the basis of film-content analysis and anticipated opinion change from such analysis. Such opinion changes were, however, less frequent and, in general, less marked than changes in factual knowledge.

The films had only a very few effects on opinion items of a more general nature that had been prepared independently of film content, but which were considered the criteria for determining the effectiveness of the films in achieving their orientation objectives.

The films had no effects on items prepared for the purpose of measuring effects on the men's motivation to serve as soldiers, which was considered the ultimate objective of the orientation program.

A number of hypotheses are discussed in Chapter 3 to account for the lack of effects of the films upon general opinions and upon motivation. It may be, for example, simply that a single 50-minute presentation is too small an influence to produce noticeable changes in deep-seated convictions—although this was certainly not out of line with expectations of the film producers. No studies were done in which the entire series of orientation films were studied in combination to check the possibility of sizable cumulative effects. A study in which the cumulative effects of two films were studied did not, however, show sizable effects on general opinions or motivation. Certainly it was to be expected that the amount of men's motivation which could be influenced by a film was very small in relation to the other motivational factors present in their immediate and total life situation. It may be that the amount of change which could be influenced by indoctrination had already been achieved through civilian sources even before the men entered the Army. In some cases the lack of effects may have been due to the diffusion of coverage rather than the concentration upon a few well-chosen targets. Finally, it is possible that the lack of effects may be due simply to the fact that the attitudes and motivations investi-

gated in these studies cannot be appreciably affected by an information program which relies primarily upon "letting the facts speak for themselves." It may be that such a program will prove effective with only a small segment of the population whose attitudes are primarily determined by rational considerations. For most other individuals, motivations and attitudes may generally be acquired through nonrational channels and may be highly resistant to rational considerations.

This last hypothesis calls into question the basic assumptions of the Army orientation program. The rationale of the orientation program—of which the orientation films were a part—rested primarily upon two basic assumptions concerning mechanisms for affecting motivation by means of "orientation." The first assumption was that giving men more information about the war and its background would produce more favorable opinions and attitudes. The second related assumption was that improvement of opinions, attitudes, or interpretations about the war would lead in some measure to higher motivation or greater willingness to accept the transformation from civilian to Army life and to serve in the role of soldier.

The results just summarized cast considerable doubt on the first of these assumptions. The films produced sizable increments in information but effected almost no significant changes on the more general opinion items designed to measure changes in the orientation program's objectives. This negative conclusion was also supported by data from other studies which indicated only a slight correlation between scores on information tests and orientation opinions. In addition, increases in information were only slightly correlated with changes in the opinions designated as subobjectives of the orientation program.

No evidence was provided by the experimental studies of films bearing on the second assumption, concerning the relationship between changes in opinions and in motivation, since the films produced almost no increments in the opinions considered significant. Even if there had been changes in opinion and motivation, it would be difficult to know whether to attribute the change in motivation to the change in opinion. Indeed, it is difficult to see how the relevant experiments can be performed. The chief difficulty is the attempt to vary independently the causal variables in the hypothetical relations, since here the "independent" variables are themselves *reactions of the individual* and as such require a stimulus

Hence it is difficult or impossible to know whether the dependent variable was affected by this reaction or whether it was directly affected by the stimuli used to bring about the reaction.

Results were also obtained concerning the relation between the audience's evaluation of a film and its effects on their knowledge and beliefs. It was found that men who most liked a film tended to be most affected by it, but it is difficult to rule out the possibility that those who liked the films were different initially in other respects from those who did not like them. The problem raised is one of which is cause and which effect. Did those who were influenced by the film like it, or were those who liked the film more influenced by it? To demonstrate a correlation between liking and amount of effect does not answer the question either way since, as just noted, audience responses or evaluations cannot be treated as independent variables. They are responses that can be related to other responses or to changes in response, but there remains the possibility that both responses of the audience are direct effects of the film rather than that one response has a causal effect on the other. Similarly, it was found that men who regarded the film as propagandistic were somewhat less affected, but again the nature of causal relationship is difficult to establish from these results, since the groups compared may have been initially different in resistance to change.

EVALUATIVE RESEARCH VS CONTROLLED VARIATION

As a by-product of the testing of a number of films, it was hoped that it would be possible to reach a number of generalizations about the factors governing the effectiveness of films. Particularly it was hoped to obtain generalizations that would specify what kinds of presentation devices would be most effective for various kinds of material. As it turned out, the drawing of such generalizations from the data obtained was possible only to a limited extent. There were two reasons for this relative paucity of generalizable conclusions from the studies.

The first reason lay in the nature of the Research Branch's mission and purpose, which was defined as a program of "applied" research intended to find answers to immediate "practical" questions rather than to attack long-range scientific problems. This meant that priorities as to what kind of film studies would be undertaken were usually decided in favor of testing completed products or making experimental comparisons between existing alternative prod-

ucts. The former kind of experimental evaluation of a film's effect, well illustrated by the studies of orientation films in the "Why We Fight" series, is obviously tied to the specific content of the film studied as far as experimentally demonstrated findings are concerned. But it is conceivable that, over a series of studies covering a number of films in which a variety of presentation techniques were repeatedly used, it might be possible to educe generalizations by relating the size of gains produced on specific points to the techniques used to present each point. The number of films experimentally evaluated was actually not large enough to give this possibility a fair test, but as time went on the experimenters became increasingly convinced of the relative inefficiency of such an inductive approach as compared with what might be learned through experimental comparisons specifically set up to test hypotheses about the effectiveness of various presentation methods.

Another reason for the paucity of generalizations obtained from the studies has already been in part implied by the foregoing, and is related also to the applied purpose of most of the studies. This is the inherent limitation, as a source of generalizations, that would appear to be characteristic of evaluative studies. The limitation, which is evident in the case of studies seeking to evaluate single films, applies also to those which compare alternative products, examples of which are described in Chapter 5. In each case these studies gave a fairly clear-cut answer as to the superiority of the specific products compared, but in no case did they provide any very widely generalizable conclusions. For example, the study on the relative effectiveness of a motion picture on map reading and an alternative series of still slides ("film strip") presenting information on the same subject shows clearly that the particular film strip studied was just as effective as the particular movie used in presenting the material. But this finding does not help much in generalizing about the relative effectiveness of the two media represented by the presentations compared, because these presentations differed in content and manner of presenting the material as well as in the fact that one employed moving pictures and the other employed still pictures.

By contrast, the study of the relative effectiveness of presenting "one side" versus "both sides" of an issue, reported in Chapter 8, and the study of the advantage of audience participation, reported in Chapter 9, are of considerable general significance. The advantage of the latter studies is that instead of comparing alternative

existing products they compare presentations specifically designed to exemplify alternative *procedures*. In doing this, an attempt is made to control all factors except the ones under investigation. Consequently, any differences or lack of difference in effectiveness may be clearly interpreted as evidence of the importance of the factor that differentiates the two procedures. With this method of study, particularly if the experimental variable is related to theory, there is afforded a more secure basis for generalizing to other products using the same procedures than can be gained from comparison between available existing alternatives that differ with respect to a number of factors in addition to the one presumably differentiating them.

However, purely evaluative research—despite the above-indicated limitations on generality—does appear to have some merit both in relation to immediate problems of an educational film producer and in terms of its potential contribution to theory. Its potential theoretical contribution is primarily as a fruitful source of hypotheses concerning factors affecting film effectiveness. Theoretical expansion cannot proceed in a vacuum, and an abundant body of specific results on a number of films may provide the necessary catalyst to development of theory. Thus the obtaining of an unusually large effect or the absence of effects which were expected in an evaluative study requires explanation and provides a suitable occasion to examine possible hypotheses. These, in turn, will—since they are merely hypotheses rather than established conclusions—usually require specially designed experimental study for validation.

The contribution of evaluative studies to the immediate practical problems of the film producer appears to lie primarily in their use for improving or checking on the effectiveness of the particular film studied. In the rapid tempo of the war situation, where a completed film could only be changed or withdrawn if it was seriously unsatisfactory, the utilization of evaluative studies was not particularly efficient. Generally the research findings could only indicate the successes and failures of a film without its being possible to remedy any defects as far as the film itself was concerned. The stage at which evaluative research would appear to have its greatest potentiality for product improvement is well prior to the completion of a film, when suggestions derived from the research can readily be incorporated into the final film production.

One kind of research analysis having general application which

can be done as a by-product with the data obtained in an evaluative study is that in which the primary interest is in individual differences. That is, as part of the analysis of evaluative experiments, one can provide information as to the differential effect of a presentation upon different segments of the audience, expressing the differences in terms of "population variables" (see Chapter 1). Generalizations concerning the influence of population variables may be possible even from the data obtained from the evaluative studies of a single film. This is partly because the presentation is constant for all population groups and partly because a single film may have a number of specific effects each of which can be related to a particular population variable, so that considerable replication of effect as a function of population variables is possible even within the confines of one film.

From such analysis have come a number of interesting results concerning the relationship between intellectual ability and effects of films on knowledge and opinion. These are summarized in the two remaining sections of the present chapter, together with other more general findings obtained in the few studies where it was possible to employ controlled experimental manipulation of presentation methods. In these latter studies, the factors manipulated experimentally were either "content variables" (characteristics of the content or manner of presentation within a film) or "external variables" (e.g., conditions of utilization). The effects of these two kinds of variables, which are more fully characterized in Chapter 1, are generally considered also in relation to the population variable of intellectual ability in the findings discussed in the remainder of the present chapter.

COMMUNICATION OF FACTUAL INFORMATION

Results bearing on factors affecting the communication of factual material were derived from two types of investigation: studies of the learning of factual material presented in the orientation films, and studies of the learning of material presented in training films. These will be discussed under three headings: (1) relation of learning to intellectual ability, (2) relation of learning to motivation, and (3) relation of learning to participation by the learner.

1. RELATION TO INTELLECTUAL ABILITY

In the learning of factual material it was uniformly found that those with greater intellectual ability learned more, on the average,

from a given exposure than those with less ability. This was true whether the index of intellectual ability was educational level attained or performance on the Army General Classification Test (AGCT).

In investigating this problem, an analysis was made of the relationship between intellectual ability and the amount of learning for varying degrees of difficulty of material as indicated by the amount learned by the group as a whole. Variations in difficulty tended simply to raise or lower the per cent learning a particular fact, without greatly altering the slope of the relation between intellectual ability and amount learned. It was anticipated on theoretical grounds that the relationship for easy material would show a negatively accelerated function and that for difficult material positive acceleration (see Chapter 6, p 154). This expectation was borne out only to a slight degree. The curves are more impressive for their approximate linearity at all levels than for the slight differential curvilinearity of the curves of easy and difficult material. The differences in curvilinearity might have been greater if a wider range of intellectual ability had been available, but it is difficult to see how this could have been of general significance in view of the very wide range of ability actually represented in the Army population studied.

2. RELATION TO MOTIVATION OF THE AUDIENCE MEMBERS

It is well known that the amount that an individual learns from a given exposure is a function of the degree of motivation present. It is even possible that part of the relationship just described between intellectual ability and degree of learning is attributable to differences between the more able and less able individuals in their motivation to learn, produced by differential reward during schooling in learning new material. Thus motivation often tends to be a matter of individual difference based on lengthy past experience and not an easily manipulated variable in a teaching situation. All educators know that motivation is important, the difficult problem is to do something about it.

An opportunity to study the role of motivation was available in connection with a study of an audience-participation procedure (Chapter 9). It was found that by simply announcing in advance that a test of amount learned was to be given immediately after the showing of the film strip, the amount learned increased under standard conditions (no audience participation) from 66 per cent to 81

per cent This seems a very large increase for such a simple device—in some schools it would correspond to a change from a D grade to a B grade The results furnish a demonstration of the importance of motivation, as well as showing the possibility of actually manipulating motivation in an instructional situation However, the specific effects just described may well exaggerate the amount of improvement likely to be obtained in the usual school situation by merely announcing a quiz Quizzes following a film were not a routine aspect of Army instruction, and special importance may have been attached by some of the men to the film because of the quiz announcement in this case In a school situation where pupils generally assume that some form of examination will be given on all instruction, considerable habitual motivation to learn is likely to be present even without a specific announcement of a test preceding the instructional film In this case less effect would be expected from the pre-film announcement of the quiz.

The device of announcing a quiz is, of course, well known to educators. One of its limitations is the additional time that must be devoted to testing and to the grading of the quizzes in order to maintain their motivational value. However, as a motivational device to be used in conjunction with instructional films, the announcement of a quiz seems to offer some promise at the present time, particularly when the burden of testing can be lessened by use of easily scored objective tests supplied as a standard accompaniment to film distribution

Some incidental results in connection with a study of training films are also relevant to the discussion of motivation. In this study, reported in Chapter 5, an introductory discussion of what the film was about, what to look for, and so forth, was presented just prior to showing the film. The result that emerged in the analysis of the data was that the introduction improved learning of items of information in the film that were *not* covered in these introductory comments as well as items specifically mentioned as things to look for. The implication seemed to be that an important effect of the introduction was to give *significance* to the film—heightening the motivation of the audience members to feel that it was worth paying attention to and to try to learn the contents. These incidental results make it appear desirable to study this aspect in greater detail by controlled experimentation.

3. RELATION TO PARTICIPATION BY THE AUDIENCE MEMBERS

Almost as well known in educational circles as the importance of motivation to learning is the importance of participation by the learners. "Learning by doing" has been a widely recognized educational principle ever since E. L. Thorndike found that little was learned from imitation or passive exposure. The role of participation has also been emphasized by numerous studies which have found that recall of verbal material is greatly facilitated by dividing the time spent in studying between reading the material and attempting to recall it. The active participation principle is intuitively utilized by most individuals engaged in practical training problems and has been a standard precept in Army training doctrine for many years. A problem is posed, however, in applying this principle to film instruction, which is characteristically carried on by presenting material to members of an audience who sit back and receive the instruction passively.

The device that was tested in the experiment reported in Chapter 9 was a simple one to utilize for the kind of material being taught by the film strip. The topic of instruction was the phonetic alphabet ("Able for A," "Baker for B," etc.), making the learning task comparable to the simple paired-associates learning problem that has been widely used in psychological experimentation. To such a task an active recitation method was readily applied. At the end of every half dozen letters, the film strip presented a review list of the letters without the names, and the audience members practiced aloud the correct names. As was seen in Chapter 9, this participation procedure increased markedly the amount learned as compared with a standard presentation that was identical except for the instructions to recite aloud.

The effect of participation was found to be greater for the more difficult phonetic names than for the easier names. The results also showed that the individuals with lower mental test scores profited more from the audience participation procedure than those at the higher levels of mental ability. Finally, more improvement in learning was attributable to the participation when men were not given special motivation to learn, and less when motivation was increased by announcing that they would be tested on the material covered. These various factors appeared to operate cumulatively in modifying the contribution brought about by the active participation procedure. At the one extreme, the participation procedure

added little in the case of the bright, motivated men learning easy words, and at the other extreme considerable benefit from active participation was obtained among the less intelligent, nonmotivated men learning difficult words. Since high intelligence, strong motivation, and easy material are all factors favoring rapid learning, these results suggest the generalization that active participation will contribute relatively more as other conditions of learning become progressively less favorable.

The specific device of reciting aloud as a means of providing participation cannot, of course, be used in connection with all types of material. It seems a fair assumption that the device of reciting aloud can probably be used with about equal effectiveness for other films of the same general character as the one studied—i.e., films in which the learning materials are simple paired associates, such as might be used in teaching a foreign language vocabulary, nomenclature, recognition of aircraft types, and the like. But the recitation procedure as here used would seem less readily applicable to films having other kinds of learning objectives—for example, those involving motor learning or substance learning rather than rote memorization. An important problem is, therefore, to determine what alternative procedures might be used in such instances in order to utilize the same basic factors responsible for the demonstrated effectiveness of active recitation in rote verbal learning.

The factors responsible for the improvement produced by participation are discussed in Chapter 9. The most obvious advantage of active participation is that it insures rehearsal of responses which are to be learned. The present experiment involved learning by doing directly the very thing that was to be learned. With other subject matters (for example, teaching an athletic skill) such direct practice during the presentation of a film is generally not feasible, so that during a film the learner can at best be practicing verbal or other symbolic responses which can later be translated into the kind of action to be learned. Even in these cases, however, a participation procedure requiring *overt* performance of such mediating symbolic responses has the advantage of insuring that some relevant response is being practiced—and insuring at least that the audience is not merely day-dreaming.

A second factor of potential advantage introduced by the participation procedure is that it may motivate the learner to try to do well by providing, in effect, periodic examination on each segment of the material that has just been presented. With the procedure

used in the study described in Chapter 9 this motivational factor may be particularly effective, since with oral recitation each member of the audience would realize that his immediate neighbors are aware of how well he is performing

A third factor of probable importance in contributing to the superior effectiveness of the participation procedure is that practice is required under stimulus conditions very similar to those obtaining at the time when the response is subsequently to be performed. Thus, the learners' practicing of the proper phonetic word was done during the presentation with much the same visual stimulus as was later presented to test their knowledge of the material—i.e., the letters were presented without being accompanied by the visual presentation of the word which was present in the control strip.

FACTORS AFFECTING OPINION CHANGE

The reader will probably have noted in the previous chapters that responses to questions which do not deal with factual subject matter were generally referred to as "opinions" and that the term "attitude" was usually avoided. This usage reflects in part the fact that no satisfactory way was found of distinguishing between attitude questions and questions of opinion. As treated in Chapter 6, the outstanding feature of an "opinion" as distinguished from a statement of fact is that opinions are *interpretations* of available facts, which interpretations are difficult to verify or disprove directly. From this point of view it is obvious that whether or not a statement is regarded as a fact or as an opinion is a matter of degree dependent on how convincing is the proof or disproof of the statement. It is also clear that what is an opinion for one individual may be a fact for another, depending on the amount of information available to each individual. In the present studies the experimenters usually judged whether a particular item would be regarded by most of the men as a factual question or as a question of opinion, and then reinforced the classification decided upon by separating the two kinds of items in the questionnaire, one group of items being labeled as "factual" and the other group being labeled as "matters of opinion" on which disagreement was to be expected from person to person.

Several generalizations concerning the effects of mass-communication devices on opinions are indicated by the findings reported in the preceding chapters. These fall primarily under three major headings: the relation of changes to intellectual ability, the relation

of changes to initial opinion, and the relation of changes to the amount of time elapsing after exposure to the communication. A further section discusses the nature of "propaganda."

1. RELATION TO INTELLECTUAL ABILITY

A very consistent finding in the present studies was that both the initial opinion held and the changes in opinion obtained were generally related to the men's educational level. Other population variables or demographic characteristics were also investigated, but they were much less often related to the initial opinion held than was educational level and they were almost universally unrelated to the size of opinion changes resulting from exposure to a film or other communication. Educational level on the other hand turned out to be so commonly related to initial opinion and to opinion change that eventually the exceptional instances in which no relation was obtained came to be regarded as meriting special investigation.

As indicated in Chapter 6, the educational level attained by the men was found to be a useful index of general intellectual ability. The availability of this index made it possible to investigate a variety of theoretical relationships between intellectual ability and the effects of communications upon opinions.

The key concepts found useful in a theoretical framework relating intellectual ability to opinion changes may be called learning ability, critical ability, and ability to draw inferences. Learning ability enters in that the more intelligent learn more from a given exposure. Thus if everything else were constant, greater changes in opinion would be expected in the case of the brighter men simply because they learn and remember more of the things presented in the communication. However, because of greater critical ability they are less likely to *accept* an interpretation which is unsound, given the facts at hand. That is, they are better able to judge whether the interpretation goes too far beyond the evidence, whether the conclusions follow logically from the assumptions made, and so forth, so that they may refuse to accept an unsound interpretation no matter how well they have learned the interpretation given. Moreover, their critical ability, by enabling them to recognize prejudice in their own thinking, makes them less likely to resist accepting a sound interpretation.

The third factor postulated—ability to draw inferences—would be expected to affect opinion change by enabling the individual to arrive at an interpretation as a result of a communication despite

the fact that the interpretation was not part of the direct content of the communication. That is, this ability would facilitate an individual's being influenced by the unstated implications of a communication as well as by the statements explicitly made in it. This ability is probably also related to the aforementioned critical ability since if an individual were able to draw his own correct inferences from the factual material presented he would notice any invalid interpretations presented in the communication.

All of the foregoing factors would be expected to affect the relation between intellectual ability and the size of opinion change achieved by a particular communication. The form of relation obtained would be determined by which factor or factors was most relevant in a particular case. For example, an ascending curve similar to the curve for learning of factual information would be expected in relating opinion change to intellectual ability if the interpretation was directly made in the communication, and if in addition it was the most reasonable interpretation of the facts presented. If the interpretation was the most reasonable one but was not directly stated in the presentation, an ascending curve would also be expected but perhaps one which was positively accelerated, showing effects only among the most intelligent. If, on the other hand, the interpretation was not reasonable but was clearly presented, a descending curve would be expected—the interpretation would be easy for even the less intelligent to learn but it would not be accepted by the more intelligent. With a large range of intelligence, curves which first rise and then fall would be expected if there were an "inference" of only moderate difficulty to be drawn from the communication but one that was not acceptable on logical grounds. In such a case the least intelligent would not get the inference at all, the most intelligent would get the inference but not accept it, and only those in between would have enough ability in drawing inferences, and little enough critical ability, to accept the interpretation.

All of these different kinds of relationships were obtained in the present studies in comparing opinion changes at different intellectual levels. Because of the heterogeneity of the relationships obtained with different items, an overall "average" relationship between intellectual ability and opinion changes is relatively meaningless since it obscures the separate relations—some positive, some negative, etc.—obtained for separate items.

Most of the results obtained for individual items could be interpreted "after-the-fact" in terms of the theoretical framework de-

scribed above. Unfortunately, it was not possible to do much experimentation to test "before-the-fact" the utility of this conceptual scheme. One experiment, that comparing a one-sided argument with one that took both sides of the question into account provides an example. The prediction from the factor of "critical ability" was that the more intelligent would be more influenced by the presentation taking both sides into account. This prediction was borne out, as was seen in Chapter 8.

Testing of hypotheses that could be derived from such a theoretical framework relating intellectual ability to effects of a communication in changing opinion seems like a promising field for future research. Unlike the relation of intellectual ability to learning of factual information, the relation to opinion change appears to be quite complex. Understanding the relation is important because of the likelihood that very different kinds of communications would be most effective depending on whether the audience members were of high, low, or of mixed intellectual ability.

2. RELATION TO INITIAL POSITION HELD

It seems highly probable that the effectiveness of a particular communication at changing opinions will depend in part on the initial opinions of the members of the audience. This consideration suggests two valuable ways of using research in developing effective communication methods. One is the continuing use of research in establishing general principles concerning how initial opinion affects the reaction to communications; the other is the use of opinion research prior to the preparation of a particular communication, as a means of providing information concerning the initial opinions of the intended audience so that the applications of principles to the design of a communication can be made in terms of the opinions actually held.

One of the opportunities to check on general principles about the relation of opinion change to initial opinion was in connection with the assertion sometimes made that the effect of "propaganda" or any attempt to persuade a person to change his beliefs serves primarily to reinforce his initial position—to make him all the more convinced of his belief. Another way in which this point of view is expressed is that "propaganda" has its intended effect only on those individuals whose initial position was already the same as that of the communication—i.e., it has positive effects only on those already positive.

In the present studies intensity of conviction was not measured, so it was not possible to determine whether some individuals were made more firmly convinced of their initial position by a communication designed to change their position. But in terms of whether a communication has positive effects only on those already positive, the present studies failed to confirm the expectation. Instead it was found—wherever an appropriate analysis could be made—that the communication had its intended effects over the entire range of initial position. That is, whether a man was initially for or against the stand taken in the communication, his opinion tended to be influenced in the direction of *more acceptance* of the point of view argued for in the communication. In no case was there found a significant change opposite to the intended effect of the communication among those initially opposed, and in all cases where the audience as a whole showed a positive change, the change was positive among those initially opposed.

However, initial position of the audience members was found to be an important determiner of what kind of communication was most effective in changing opinions. In Chapter 8, it is shown that while the members of the audience who were opposed to the communication's point of view showed significant positive changes both for the one-sided communication and the communication giving "both sides," they were more likely to change their opinion if the arguments supporting their own initial stand were included (i.e., with the program giving "both sides") than if only the arguments against their position were included. In other words, it was found that a man was more likely to accept a new point of view, opposed to his initial point of view, if the case is made for his previous opinion as well as the case for his adopting the new opinion. At the same time it was found that making the case for "both sides" of the issue was less likely to produce a change than a "one-sided" argument among those who initially had the same point of view as that endorsed by the communication. Here again both forms of presentation produced positive effects, but the effect was less if arguments for the other side were mentioned.

This experiment was designed to study a common contention that a communication should never mention the other side of the argument. The purpose of the experiment was to test the alternative hypothesis that among those initially opposed to the point of view fostered by the communication, and particularly those familiar with important opposing arguments, it would be more effective at least

to mention the arguments on the other side. This hypothesis is somewhat related to the above-noted assertion that propaganda may have negative effects on those initially opposed. If there is any situation in which those initially opposed would be made all the more opposed by a communication, it would probably be one in which a one-sided presentation—which left out all of their own important points—antagonized them and served only to give them further rehearsal of their own position. As it turned out, however, even the one-sided presentation produced positive effects all the way along the scale of preference for, or opposition to, the point of view of the communications used.

The most significant finding, noted earlier, that did emerge from the study was that the presentation giving both sides was—as expected—more effective among those initially opposed. It should be realized that the method of utilizing the arguments on both sides of a question is probably very important in determining the relative effects of the communication on either those initially opposed or those initially favoring a particular point of view. In the experiment reported in Chapter 8, the utilization of arguments on “both sides” was with the specific purpose of producing the maximal positive effect among those initially opposed. The experiment was initiated in the expectation that a one-sided argument would be less effective with this subgroup than would a presentation that used judicious inclusion of the arguments on their side—and a one-sided argument might even have negative effects. On the assumption that not all ways of presenting the arguments for both sides would have the same effect, it is desirable to consider the theoretical basis for the initial expectation, and how the theoretical factors were incorporated in the communications used.

The main theoretical consideration was that those opposed would already be familiar with the chief arguments on their side, so no harm could be done by mentioning these arguments, on the contrary, a favorable effect of such mention seemed likely by preventing the opposed individuals from practicing, in an antagonistic mood, their own arguments as refutations of the validity of the arguments presented in the communication. Thus a communication that omitted their arguments at points where they were relevant would thereby seem unfair, and the audience members would be implicitly rehearsing their own arguments instead of attending to the communication. This would be expected to have the effect of making them (1) feel the presentation was invalid because

biased; (2) motivated to reject rather than to accept the conclusion endorsed, (3) practice implicitly their own opposed arguments and conclusions, (4) learn less of the content of the communication because of the distracting effects of their preoccupation with implicit incompatible responses. All of these factors, if present, would interfere with the effectiveness of a one-sided communication. The utilization of arguments on the "other side" was aimed at minimizing their negative effects.

The chief implication from these theoretical considerations is that the arguments on the "other side" ought to be explicitly mentioned. Various subsidiary inferences may be drawn with respect to the timing and manner of presenting these arguments on the other side. Such inferences led to a series of "rules" of presentation which appeared likely to maximize the effectiveness of a presentation that commits itself to giving "both sides" of an issue, for the purpose of converting as many as possible of those initially holding the point of view opposing the one advocated. Some of these rules were followed in preparing the transcription covering "both sides," as described in Chapter 8, p. 203f. Two examples of rules followed are: (1) that all of the arguments for "the other side" should be mentioned at the very outset (in order to let the opposed members of the audience know at once that their arguments would not be ignored), and (2) that attempts to refute opposing arguments should be made only when an obviously compelling and purely factual refutation is available (on the grounds that strong positive arguments are likely to be convincing whereas an attack on opposing arguments which have previously been accepted will tend to have mainly the effect of antagonizing those who hold them).

The experiment reported in Chapter 8 also has relevance to the second aspect of research on the role of initial opinion mentioned earlier—that is, the experiment has a bearing on the use of research in determining the nature of the opinions of the intended audience, prior to the preparation of the communication. For example, in preparing the presentations used in the experiment reported in Chapter 8, an advance survey was made to find out which arguments against the conclusion were most common, and a special pretest was made in an attempt to discover the conditions under which these arguments were elicited. In this special pretest, the experimenters sought to engage representative subjects in a controversy—using the main positive arguments as stimuli—in order to determine which positive arguments elicited which negative arguments.

As a result of this pretest, there was an empirical basis for knowing when, in the course of the presentation, the various arguments of the opposition were likely to be elicited. A subsequent quantitative survey provided information as to which of these arguments of the opposition were common enough to be worth taking into account in the communication used. Such a sequence of pretests would appear to be a necessary preliminary to the most effective use of the principles utilized in the present study, or of similar principles which depend on taking into account the arguments, prejudices, and motives of persons opposed to the stand being advocated.

It will have been noted that the preceding discussion deals only with a mass-communication situation. It is assumed that the audience members are not themselves allowed to participate, that they are merely passive receivers of whatever is presented. A different set of principles might apply in a different situation, although it seems likely that most of the same principles would hold and the difference would be chiefly one of emphasis. For example, in a face-to-face situation it would probably be of paramount importance to apply the last principle discussed on page 205 of Chapter 8—that is, the avoidance of opportunity for the opposed individual to identify himself as a member of the opposition. In a face-to-face situation we would expect “ego involvement” to become a greater factor and would therefore expect considerable importance to attach to preventing the listener from taking a stand at the outset—otherwise the effect of the communication might only be to strengthen his motivation to accept his initial belief and to find new arguments to rationalize his position. Also, it is not surprising that a common result of the debate form of communication is to make each individual more convinced in adhering to his initial position, especially when the audience members are required to express their initial position.

Obviously, the results obtained cannot be regarded as verification of any particular one of the theoretical principles used in preparing the arguments presented, since all of the principles that could be incorporated were used simultaneously in an attempt to maximize the effectiveness of the program giving both sides among the initially opposed view. An important area for future investigation is the experimental determination of the comparative efficacy of presentations which utilize the various specific “rules” derived from the theory here employed. It is in line with the point of view

expressed in Chapter 1 of this volume to expect that progress in the development of a real science of communication will, in fact, stem primarily from experimental study of this kind and from revisions in theoretical formulation such as the accumulation of experimental results is likely to dictate.

3. TEMPORAL COURSE OF EFFECTS FOLLOWING A COMMUNICATION

It has been previously noted that there was, at the outset of the orientation film studies, a more or less implicit assumption on the part of the experimenters that effects of a film would be maximal immediately after the film showing. A related assumption was that opinion changes as well as factual knowledge learned would show a forgetting curve as time passed after the film showing. As mentioned earlier, a standard time interval of about one week after the film showing was adopted as the interval before testing for effects simply on the ground that this was judged a sufficiently long lapse of time to be on a relatively flat portion of the assumed forgetting curve.

The only data obtained to investigate the validity of these assumptions came from a special study of the fourth orientation film, "The Battle of Britain," reported in Chapter 7. In this study two points on the presumed "forgetting" curve were investigated, by measuring the film's effects nine weeks after the showing as well as at the standard interval of about one week. At the outset, the phrasing of this investigation's purpose was in these terms: How much of the one-week effects will still be *retained* nine weeks after the showing?

However, as was seen in Chapter 7, while the word "retention" applied well in the case of factual knowledge, it did not turn out to apply to the results for most opinion changes because, on the average, these were somewhat *larger* after nine weeks than after one week, and in some cases they were very much larger. This result was clearly contrary to the initial expectation, even though it had been anticipated that opinion changes would be somewhat better retained than changes in factual knowledge. This expectation was based on the grounds that opinion changes should correspond to "substance" learning, which is usually well retained, whereas changes in factual knowledge would correspond more nearly to rote learning of details, which ordinarily shows a relatively rapid rate of forgetting. But it was not expected that the opinion changes would tend to show an actual increase with passage of time.

Unfortunately, this finding was discovered too late in the series of orientation film studies to make it possible to check the results in other films. It is unknown, therefore, whether the same general finding would have been obtained with the other films in the series. Consequently, the results for Film 4 and for the film series as a whole have been presented in Chapters 2 and 3 only in terms of the findings at the end of about one week after the film showing, as if these were *the* effects of the films. It should be kept in mind, however, that further long-time studies might have revealed a tendency for some of the opinion changes produced by each film to be greater after a lapse of several weeks following the film showing. A further possibility suggested by the data for Film 4 is that some opinion changes might not show up at all until several weeks after the film showing.

As was noted in Chapter 7, the slight average increase in the opinion changes during the nine-week interval did not reflect a general trend for *all* opinion changes to increase with passage of time. Rather, the average trend resulted from a composite of some significant increases and some significant losses, which in the present case resulted in a slight average increase overall. Analysis indicated that the increases in opinion changes with passage of time were more likely to occur in the case of "uninformed" opinions—i.e., opinions more prevalent among the less well educated—and that the changes occurred more frequently among the less well educated and among individuals who seemed predisposed to accept a particular opinion prior to the film showing. In the actual analysis, these factors are inextricably interrelated and could not be disentangled as entirely separate variables; however, the overall impression is definitely suggested that some "projective" factor is at work—that over a period of time the individual utilizes the material shown to modify his opinion in a direction toward which he is already predisposed.

The results bear out the expectation that forgetting occurs for factual material, but suggest that little forgetting occurs for "reasonable" opinions (interpretations of facts positively correlated with education) and that, in the case of highly "questionable" interpretations, an actual increase with time is found instead of a loss. Since the specific-versus-general continuum is one of the dimensions along which facts are differentiated from opinions or attitudes, it would be interesting to know whether the increases were

primarily obtained in the case of the less specific items. An attempt to rate the items with respect to their specificity was made, and significantly greater increments of effect with passage of time were found in the case of items rated less specific. However, these subjective ratings were not considered sufficiently reliable for the results of the analysis to deserve presentation. But the hypothesis is suggested that increments in opinion change with lapse of time are in part a function of predisposition for belief in a certain direction, and that this projective factor is more likely to show up in the case of general statements than in the case of highly specific statements. This may be related to the usual finding that immediate projective factors have greater influence when the stimulus is more vague and undefined.

In addition, it may be that the increments with time reflect a change in memory content. To the extent that specific material tends to become more general with lapse of time, the acceptance—after nine weeks—of opinion statements that were not accepted immediately may indicate that the content of what is retained has shifted from specific to general. The operation of a projective factor and a shift from specific to general would work in combination to produce increments on the “more attitudinal” items, and in the direction toward which the individual was already predisposed. These highly speculative suggestions indicate some very interesting areas for future research. As speculations they would appear to fit in well with the findings of Bartlett, as reported in his well-known book, *Remembering*, that after original learning, that which is recalled tends to be progressively modified with lapse of time, the modifications being predominantly in the direction of omission of all but general content and the introduction (“impartation”) of new material that is in line with the individual’s initial attitudes toward the content.

THE DETERMINATION OF WHAT CONSTITUTES “PROPAGANDA”

In the foregoing discussion and throughout the preceding chapters the notion of “informed” and “uninformed” opinions has been used, and in Chapter 6 this notion is tied in with a proposed method of defining “propaganda” operationally on the basis of its content. Working from the definition of opinion as “interpretation of available facts,” it was proposed that the valid interpretations are those which can be shown to be positively correlated with an index of

ability to make valid interpretations, and that attempts to foster "invalid" interpretations (i.e., those negatively correlated with this ability) might be classed as "propaganda."

In assessing an individual's "degree of ability to make valid interpretations," it is suggested that account be taken of the following factors: (a) intellectual ability, (b) knowledge of the relevant facts, (c) freedom from emotional bias.

The assumption here is that in order to make valid interpretations an individual would not only need to have the capacity for generalizing from facts and knowledge of all of the relevant facts that were available, but that also the interpretation should as nearly as possible be uninfluenced by nonrational considerations. If people were scaled along these three dimensions, with the scale values weighted appropriately to yield a single index of interpretive ability, plotting the index thus obtained against the frequency with which a given opinion is held would afford a valuable and definitive empirical basis for distinguishing informed interpretations from invalid interpretations ("propaganda").

It is believed that this procedure can generally, however, give a definitive answer concerning an item of opinion if either a positive or negative correlation is obtained between the index and the extent to which the opinion is accepted. It might be argued that an interpretation held by a great majority of the best informed and most capable intellectually would be a valid interpretation, regardless of the opinion held by the less informed and capable. However, unless it is shown that greater knowledge and intelligence makes the opinion *more likely* to be held than in cases of less information and ability, there is no very secure evidence that the interpretation is any more valid than any other. This is because the acceptance of the interpretation may in all groups be based on an irrational bias. But if a positive correlation is shown it would appear to be extremely likely that the interpretation can be supported by an intelligent assessment on the basis of relevant facts.

It is evident that a number of assumptions are implicit in the foregoing proposal for an objective procedure to assess the validity or propaganda character of interpretations classified as opinions. For example, it is assumed that satisfactory agreement can generally be obtained as to what facts are the ones "relevant" to the ability to make a sound interpretation in each instance. In the absence of available data to test such assumptions and their implications, the

procedure proposed still appears to have at least the merit of objectivity and reasonableness; it would seem, at any rate, to offer a criterion superior to the haphazard and unsystematic judgments that are usually the basis for deciding whether statements of opinion are considered as being sound or are labeled as "propaganda." A limitation of the procedure which deserves mention is the possibility that a particular conclusion could be validly drawn only by having available certain facts known by only a very few individuals. In this case the overall correlation between opinion and an index of general intellectual ability might be irrelevant.

An important practical limitation lies in the difficulty of obtaining a satisfactory scaling of the three criteria proposed. The most difficult of the criteria to scale would almost certainly be that of freedom from emotional bias. Presumably, nonrational bases for making interpretations would be less frequent or influential among those better qualified intellectually, but on some questions an emotional bias might be more prevalent among the more intelligent. In lieu of a scale of degree of prejudice on a particular interpretation, it might in some instances be possible to circumvent this difficulty by getting sufficient representation from all subgroups of the population that nonrational considerations would in effect largely be "balanced out."

The procedure proposed here for identifying propaganda is directed at the content of the interpretations fostered by a communication rather than at the methods of persuasion used. The proposal does, however, have implications concerning the aspect of propaganda stressed when attention is being called to the use of unscrupulous and nonrational methods as characteristic of propaganda. Thus, if invalid interpretations are those which do not follow from the relevant facts, attempts to foster such interpretations must almost inevitably resort to nonrational methods such as emotional appeals, concealment of facts, etc. The proposed procedure does not, however, have relevance for the ethical problem involved in the converse, i.e., using nonrational methods to convince others of a valid interpretation.

In the absence of measures of all three factors suggested as criteria of the ability to make valid interpretations, it was found useful to employ educational level attained as a crude index of "ability to make valid interpretations." This use was justified on the grounds that educational level is a rough overall index of general intellectual

ability, access to general factual knowledge of all kinds and, to a lesser extent, freedom from irrational bias. It was found that some items were highly positively correlated with this index. For example, the opinion (in 1942) that the German ground forces ranked at the top in strength among the major nations was accepted by only 29 per cent of the grade school men but by 70 per cent of the college men, indicating that the opinion was a "valid interpretation" of available facts. On the other hand, some opinions were negatively correlated. For example, belief that in Germany babies are taken away from parents and raised by the state was found in 63 per cent of grade school men but only in 33 per cent of college men, indicating an "invalid interpretation" which would constitute "propaganda" if fostered by a communication. It was also found that these two kinds of opinions—the positively correlated and the negatively correlated—were differentiated with respect to the effectiveness with which they were communicated among men of different ability. "Valid interpretations" tended to be acquired as a result of seeing a film to a greater extent by those with higher intellectual ability; "invalid interpretations" tended to be more readily acquired by those of lower than by those of higher intellectual ability. A further finding was that the two kinds of opinions behaved differently with passage of time after exposure to the communication: positively correlated items tended to show decrements in time while negatively correlated items, indicative of invalid interpretations, were more likely to show increments with passage of time, the increments in such cases occurring mainly among the men of lower intellectual ability.

Although the use of educational level as a rough index of ability to make valid interpretations appeared justified for the subject matter covered in the present studies, it is recognized that this single index may have more serious limitations with other topics, particularly those dealing with economic issues. Here the positive correlation between educational level and socio-economic status may introduce considerable bias even among the better educated group.

An important area for future research lies in exploring further the relations between the effects of communications and the operationally defined "validity" of the interpretations made. Especially to be desired would be replication in a new context of the study in which effects were analyzed as a function of passage of time with use of a more complete index of ability to make valid interpretations.

PRACTICAL VALUE OF SYSTEMATIC STUDIES

As a final evaluative comment, a word should be said concerning the relative contribution to the solution of practical problems made by the types of research described in the present volume. The studies reported in Chapters 8 and 9 were designed primarily to extend our scientific knowledge rather than to provide immediately practical information. But the results were of considerable use in providing practical suggestions concerning effective methods of preparing mass communications. Equally useful suggestions were rare in the studies presented earlier, which aimed at "practical" evaluation of specific film products or comparison of existing products. There thus arises the interesting paradox that the most useful practical conclusions obtained arose from the few studies designed and executed to answer more general scientific and "long-range" questions rather than from studies that were fostered for the purpose of giving answers to "immediate, practical problems."

This apparently greater immediate practical value of the more "scientific" or "long-range studies" is here interpreted as indicating that, at the present stage of research on factors determining the effectiveness of mass communications, studies predicated on theoretical considerations involving the possibility of considerable generality are very likely to have more immediate practical value, as well as greater long-run scientific importance, than are studies aimed solely at solving immediate practical problems. In terms of the considerations discussed in Chapter 1, this superiority of studies closely related to theory seems likely to be particularly great where such studies are set up so as to involve not only the controlled manipulation of any single variable but simultaneously its interaction with other relevant factors which are experimentally varied in combination. It is believed that research of this kind, closely related to theory, will have greater practical value until a point is reached at which general principles have been established in the field and there remains only the working out of details of how most effectively to apply these principles to specific content.

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APPENDICES

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APPENDICES: MEASUREMENT PROBLEMS ENCOUNTERED

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SOME of the measurement problems that were encountered in the film studies were of minor importance or specific to a particular study. Most of these have been presented in connection with specific studies to which they were relevant. Several recurrent problems of a more general nature were also encountered. Some of these are discussed in the appendices that follow. These measurement problems are not specific to film research but would be encountered in practically any experiment that attempts to quantify qualitative data.

A P P E N D I X A

THE BASELINE FOR MEASUREMENT OF PERCENTAGE CHANGE

A COMMONLY used method of measuring effects of an experimental variable on qualitative responses is to show the percentage making the key response in the control group, the percentage making this response in the experimental group, and the difference between these two percentages. The "effect" is therefore indicated by the difference between the percentages.

However, this measure of effect is a function of the existing level of frequency of the key response prior to the experiment. If nearly all members of the population are unfamiliar with a particular fact prior to a film showing, a very effective film can yield a numerically large change when effects are expressed in this way. But if nearly everyone is already familiar with the fact, the effect is limited in size because only a small proportion did not know the fact initially and therefore only a small "effect" of the film can be obtained.

Thus the measure has serious disadvantages for determining the relative effectiveness of a film in teaching two different facts that are not equally well known initially. A different ceiling is imposed on the magnitude of effect for each different initial level, and the comparison is biased against items that are well known initially. Similarly, the measure introduces a bias if used for comparing the effects of a film on two or more groups that differ in initial level prior to the film. For example, if nearly all of the better educated know a particular fact, they can show little learning if effects are measured as the difference between control and film percentages, whereas the poorly educated, who are in general poorer learners, can show a large effect because they knew so little to begin with that there was considerable room for improvement.

This "ceiling" artifact is even further exaggerated if effects are measured as "percentage improvement," in which the baseline is the initial level and effect is expressed as the proportion of increase in this initial level. Thus a change from an initial level of 10 per cent to a final level of 20 per cent exhibits 100 per cent improvement, whereas a change from 80 per cent to 90 per cent—with the same 10 per cent difference in percentages—is only a 12 per cent improvement. Since the baseline and the ceiling are

inversely correlated, the ceiling effect is exaggerated by the use of per cent improvement

The "Effectiveness Index"

Both of these measures of effects—the difference in percentage and the proportionate increase in the initial level—are inadequate in comparisons in which the baseline varies for the two things being compared. In many cases a more appropriate measure is the increase in number checking the correct response divided by the *maximum increase possible* as a baseline. Thus if the initial level is 10 per cent correct answers and the film increases the number to 20 per cent, the difference between the percentages is 10 per cent. But since the initial level was 10 per cent, the maximum change possible is 90 per cent. Therefore the increase, divided by the maximum increase possible is 10 per cent divided by 90 per cent, or 11 per cent. Similarly, if the initial level is 80 per cent and the film increases the level to 90 per cent, the increase is again 10 per cent, but 10 per cent out of a maximum possible increase of 20 per cent (i.e., 100 per cent minus 80 per cent), gives a film effect of 50 per cent of the total possible increase.

This measure of effect is termed the "effectiveness index" in the present volume. It is so named because it is a measure which indicates the extent to which the film achieves maximum effectiveness in the particular area involved and with the particular measuring instrument used. If P_1 is used to indicate the initial per cent and P_2 the final per cent, the effectiveness-index is expressed by the following formula¹

$$\text{Eff index} = \frac{P_2 - P_1}{100 - P_1}$$

This measure of effect may be interpreted as the effect of the film in increasing the frequency of correct responses among those initially having the wrong response. The major argument in favor of the effectiveness index is that the relative value of a particular instructional technique is thus ascertained on the basis of those individuals who do not already know the content of the instruction, therefore, any comparisons that are made to determine relative effectiveness should be free of distortion due to lack of effects among those who already know the material.

The per cent who check wrong answers initially is of course not actually the per cent who did not *know* the right answer initially. An indeterminate number of individuals will check the correct answer initially because they merely guessed, and happened to guess correctly. However, the increase

¹ The above formula applies for responses that are increased by the film. If the film decreases a particular response and it is desired to express this negative effect, the analogous formula is $\frac{P_2 - P_1}{P_1}$. This will give an effect with a negative sign and which measures the decrease as the proportion of maximum decrease possible.

in per cent is also not the actual number who changed as a result of seeing the film, because the increase would be generally accompanied by a reduction in the number who get the answer right by guessing. Thus the number who actually learned the material is really greater than the increase in correct responses, depending on the initial amount of guessing. Provided the film does not change the proportion who guess correctly among those who do not know the correct answer, the two factors above exactly balance each other so that the increase in frequency of correct responses divided by the initial frequency of errors gives the proportion who were changed of those who initially did not know the correct answer. This may be shown as follows.

Let k_1 and k_2 represent the percentages of the sample that actually *know* the correct answer before and after the film respectively. Then $100 - k_1$ is the percentage who did not know initially and $100 - k_2$ is the percentage who still do not know after the film. Now if X is the proportion of those who do not know who will guess correctly, then the obtained percentages of correct responses before and after the film, P_1 and P_2 , respectively, will be as follows.

$$P_1 = k_1 + X(100 - k_1)$$

$$P_2 = k_2 + X(100 - k_2)$$

The effect, as computed from the increase in correct responses divided by the initial number of wrong responses, is equal to $\frac{P_2 - P_1}{100 - P_1}$. Substituting from above,

$$\begin{aligned} \frac{P_2 - P_1}{100 - P_1} &= \frac{[k_2 + X(100 - k_2)] - [k_1 + X(100 - k_1)]}{100 - [k_1 + X(100 - k_1)]} \\ &= \frac{k_2(1 - X) - k_1(1 - X)}{100(1 - X) - k_1(1 - X)} \\ &= \frac{k_2 - k_1}{100 - k_1} \end{aligned}$$

It can be seen that this final expression is exactly the expression desired, namely, the increase in number *knowing* the correct response divided by the total who did not know it originally. In other words, it is the percentage who learned the answer among those who previously had not known it.

It will be noted that no assumption was made about the value for X , the proportion of correct guesses among those not knowing the correct answer. It was assumed, however, that X stays the same after the film, that is, that the correct choice is still just as attractive a guess among those who did not learn the correct answer.

In any case, the measure of effect obtained is unbiased by statistical

ceiling effects. It always measures the increase as the proportion of the total increase possible

Two illustrations from a study of "The Battle of Britain" are shown below, comparing "effects" as measured in the three different ways discussed above. The comparisons are made for the type of situation in which change as a function of maximum change possible appears to be the most appropriate measure. The examples illustrate how the conclusion is altered by using less appropriate measures that are biased by ceiling effects. In the first example the "effects" are compared for two different fact-quiz items with different initial levels, the second example compares "effects" at four different educational levels.

First Example

| | PER CENT ANSWERING CORRECTLY | |
|--|--|--|
| | <i>Reason British Navy could not be used</i> | <i>British military equipment after fall of France</i> |
| Control | 36% | 5% |
| Film | 55 | 18 |
| Effect measured as difference between per cents | 19 | 13 |
| Effect measured as per cent improvement | 53 | 260 |
| Effect measured from base of maximum increase possible (effectiveness index) | 30 | 14 |

In this example the effects are roughly the same for the second item as for the first if only the differences between per cents are considered, and the effect on the second item is about five times as great if "per cent improvement" is used, whereas the effect on the second item is about half as great as for the first item if the ceiling is equalized for the two groups by using the effectiveness index.

Second Example

| | PER CENT ANSWERING CORRECTLY THE ITEM ABOUT THE BRITISH NAVY | | | |
|--|--|----------------------------------|--------------------------|--------------------|
| | <i>Grade school men</i> | <i>Men with some high school</i> | <i>High school grads</i> | <i>College men</i> |
| Control | 31% | 29% | 38% | 55% |
| Film | 32 | 57 | 60 | 78 |
| Effect measured as difference between per cents | 1 | 28 | 22 | 23 |
| Effect measured as per cent improvement | 3 | 97 | 58 | 42 |
| Effect measured from base of maximum increase possible (effectiveness index) | 1 | 39 | 35 | 51 |

In the above example the effect of the ceiling is to produce marked curvilinearity in the curve of effects expressed as differences, which is greatly exaggerated by the use of "per cent improvement," whereas the expected positive correlation between magnitude of effects and learning ability is found if the ceiling effect is equalized.

These examples were chosen to illustrate situations in which the appropriate base line is the maximum effect possible. In other types of situations the other base lines might be adequate. For example, in a comparison of two alternative presentation methods in teaching the same material, the same questions would be asked of samples from the same population, and the conclusion about relative effects from the comparison of the two presentations would be the same whichever of the three base lines is used. However, a distorted picture of the absolute magnitude of the effects might result from improper interpretation of the measure used. This is particularly true of the per cent improvement measure in which huge "improvements" may reflect only a small educational accomplishment merely because the starting level was very low.

The preceding considerations of base lines for measuring effects have been discussed from the standpoint of measuring instructional effects of a film on factual information. The same considerations apply, however, in the measurement of changes on opinion items. In this case the concept of "guessing" is not as appropriate as the more general concept of "unreliability," and the concept of "believe" is more appropriate than the concept of "know." Otherwise, the argument in the case of fact-quiz items may be directly transferred to the case of opinion items.

An important limitation to the utility of the effectiveness index as a measure for comparing changes lies in the fact that its sampling distribution has not been satisfactorily worked out, so that at present there is no adequate method available for determining whether two effectiveness indices *differ* reliably. Therefore, to the extent that the use of the index is desirable for this comparison of changes starting from different initial levels, the development of the sampling distribution of the measure becomes a problem for future statistical research.

Special complications arise if it is desired to extend the concept underlying the effectiveness index beyond the case of single qualitative measures such as percentages so as to cover *averages* of several responses. If one wishes to use the effectiveness index in representing a film's effect on the average number of correct or desired responses to a small (or at least finite) number of items, there are two alternative procedures possible. Either one may compute an effectiveness index separately for each item and average the obtained separate effectiveness indices, or an "effectiveness index" may be computed in terms of average change divided by "average change possible." The two procedures will in general lead to somewhat different numerical results unless the size of the effectiveness

indices for individual items is uncorrelated with initial level of response over the range of items involved.

With the first procedure, experience indicated that obtained distributions permitted comparisons of means by the *t*-test, treating each effectiveness index as a raw "score." The main difficulty encountered with this procedure was that, with small samples, the value of a mean effectiveness index can be grossly influenced by a single deviant E. I. value such as is likely to occur with an initial level that leaves very little room for change and consequently gives a very unstable denominator in the E. I. formula.

Possible gross distortion of the average value by an aberrant and unstable component item is much less likely with the second procedure suggested above—i.e., computing a single effectiveness index based on the average obtained and "average change possible" for a set of several items. But this alternative introduces special difficulties of its own. In the first place, use of single effectiveness indices instead of averages over several observations leaves one without a measure of variability from item to item. Second, such an application of the logic of the effectiveness index necessitates defining E. I. in quite general terms as "obtained change divided by maximum change possible" rather than more specifically as "obtained number of individuals changing divided by maximum number who could change." This makes the unit of measurement a response rather than an individual, and consequently fails to differentiate changes in one or two items for a large number of persons from changes on more items by a small number of persons.

Attempts to Correct for Guessing

The foregoing discussion of the use of the "effectiveness index" deals with the problem of measuring changes that can be interpreted as the *per-cent-who-change* out of the group that could change. A more difficult problem is posed if it is desired to determine the *per-cent-who-know* the correct response before or after the film. It will be remembered that on page 286 an unspecified proportion, *X*, was used to represent the proportion of correct guesses among those not knowing the correct answer. This proportion does not need to be determined to calculate the *per-cent-who-change* among those not knowing initially, but it must be determined in order to calculate the *per-cent-who-know* the correct answer either before or after the film.

Assumptions can be made about the distribution of guesses in an attempt to express the effect of the film more accurately in terms of the *per-cent-who-know* out of the total sample, as a result of seeing the film. Thus in a four-choice item about which some individuals know nothing at all and only guess, it might be assumed that each choice is equally likely to be guessed, so that the distribution of guesses would be 25 per cent on the correct choice and on all others. If *k* is used to designate the percentage who know the correct answer, then $100 - k$ is the per cent who guess and

$1/4 (100 - k)$ is the per cent who guess correctly. If p is used to designate the total per cent who choose the correct response, then $p = k + 1/4 (100 - k)$, and k may be solved for, giving $k = 4/3 (p - 25)$. Thus if 50 per cent check the correct answer on such an item, 33 per cent know the correct answer; or if 80 per cent check the correct answer 73 per cent know the correct answer. With a three-choice item k would be equal to $3/2 (p - 33)$; with a five-choice item k would be equal to $5/4 (p - 20)$, and so forth.

The difficulty with this attempt to correct for guessing is that there is usually little confidence in the assumption that guesses are distributed equally over the different choices. Various factors cause the men who really do not know the correct answer to favor particular choices. This sometimes follows from the purpose of the instruction, which may be to correct a popular misconception. In this case, a wrong alternative that is highly favored is likely to be included in the choices written for the question. In such a case there may be little actual guessing although none of the group knows the correct answer. Also, the correction leads to a special difficulty when the correct choice initially receives fewer than the "chance" expectancy for guessing—as when only 10 per cent check the correct answer to a four-choice item. In this case a negative per cent is obtained for those knowing the correct answer.

In general the necessary assumptions are so infrequently justified that "corrected" results are about as likely to be less representative as they are to be more representative of the actual number who know the correct answer as a result of the film.

It should be pointed out again that this same difficulty is not present when it is only desired to express the per cent who change out of the group who could change initially, as shown earlier. The attempt to correct for guessing makes assumptions as to the *amount* of guessing of the correct answer, together with the assumption that this amount is a fixed proportion of those who do not know before and after the film. The interpretation of change divided by the maximal change possible as being the per cent who learn among those who do not know initially, on the other hand, makes only the latter assumption, namely that the same proportion of those who do not know will pick the correct response before and after the film.

Selection Effects

The "ceiling effects" discussed so far are purely statistical effects that influence the obtained measure of the effectiveness of the experimental variable. However, an additional type of ceiling may also be encountered, as the result of the selection of individuals, that may be a function of the initial level. If no one in the sample knows the correct response to a fact question at the outset, there is no selection involved in the group that can learn from the film. But if part of the group already knows the correct

answer, there is the likelihood that this portion who already know the correct answer is not a random subsample of the group but rather is a select group in terms of important variables. Conversely, therefore, the remainder who can learn the correct answer because they do not already know it will also be a select group

For example, if half of the population knows a particular fact, it is likely that as many as three fourths of the better learners in the population know the fact whereas as few as only one fourth of the poorer learners may know the fact. Positive correlation of knowledge of well-publicized information with learning proficiency is the rule and was typically found in the fact-quiz items used in the orientation studies. But the implication of such positive correlation is that those who do *not* know a well-publicized fact are a select group, likely to be biased in the direction of poorer learning proficiency. In the above hypothetical case it would include 75 per cent of the poorer learners and only 25 per cent of the better learners. For relatively little-known material the selection effect would not be great, but for very generally well-known material a *selection ceiling* is imposed in that the small proportion who do not initially know the material—and therefore could learn it from the film—are a selection of the very poorest learners in the population. In an extreme case in which, say, 90 per cent of the population already knows the fact, the remaining 10 per cent who can learn it from the film is likely to be a very backward group.

When the content of a film or other educational device is purely factual and only effects on factual knowledge are measured, the most important selection variable probably is learning proficiency. But in the case of a film designed to affect emotionally toned opinions, well-established opinions, and so forth, other selection factors may loom as of greater importance than learning proficiency. Prejudice and emotional involvement, for example, might be important selection variables.

In the studies of the orientation films, many of the orientation objectives were points of view held by the great majority of the men. Thus it was found that over 80 per cent of the men believed, at the time they came into the Army, that it was desirable to send American troops overseas to fight rather than merely waiting to defend America's shores in case of an enemy attack on the home soil. It seems likely that the remaining 20 per cent who could still be changed to this point of view by the orientation films were a very select, recalcitrant group, who would be very hard to "sell" on this point of view. Correlations with other variables and responses indicated that this was the case, such men tending to have been isolationists before Pearl Harbor, to have foreign-born parents originating in Axis countries, and so forth.

While no definite facts can be mustered in support of the contention, it seems likely that any opinion held by the great majority of the population represents a point of view that has been well publicized in the population.

Many of the cultural forces are at work to mold opinion in this particular way, and the majority of the group conforms. In such a case the small remainder that do not conform to the group opinion are likely to be "die hards" who have been exposed to all the usual forces and still will not change their opinion. If true, a selection ceiling would be present in the group who could be affected by an educational program designed further to affect opinions already held by the great majority of the population. Such a selection ceiling, if present, would mean that for a film to increase a response from 85 per cent to 95 per cent would, other things being equal, be a more difficult achievement than effecting an increase from an initial level of 55 per cent to a final level of 65 per cent. Under these circumstances there would tend to be a negative correlation between the prevalence with which an opinion is initially held and the ease with which a communication can effect an increase in the number holding the opinion.

On the other hand, an opinion or belief initially held by only a small minority may frequently be an "unpopular" opinion against the wider acceptance of which there are strong predisposing factors operative. In this case the effect of the psychological factors involved would tend to produce a *positive* rather than a negative correlation between initial prevalence of the opinion and its susceptibility to change in the direction of wider acceptance. An analysis of opinion changes as a function of initial acceptance level in population subgroups, reported in Chapter 7, shows results which can be interpreted as supporting this supposition.

As noted earlier, the use of the effectiveness index is not designed to correct for selection effects of the kind just discussed. Such selection effects involve differential susceptibility to change from a psychological standpoint, whereas the purpose of the effectiveness index is restricted to providing a statistical correction for differential possibility of change, or room for improvement.

A P P E N D I X B

“MARGINAL” VERSUS “INTERNAL” EFFECTS

THE effects discussed so far have all been in terms of a net shift in the proportion answering with a particular response, i e., the “key” response. This was the most commonly used way of expressing effects in the evaluative studies carried out by the Experimental Section. The measure was usually appropriate because for any item the response desired by the makers of a training film could be specified in advance, and the evaluation of the film in a particular content area was in terms of the extent to which it increased the frequency of this response.

However, this way of describing the effects of the film may often be very incomplete in terms of all the changes produced by the film in the particular area. In studies with scientific aims it is more likely that the experimenter will seek more complete description of the effects than is provided by the marginal increase for a particular response category.

An additional degree of completeness of description of effects is provided by analysis of the marginal *distribution* of all of the response categories used in the particular content area. For example, in a multiple-choice item with several response categories, the complete distribution of responses provides additional information. Thus the complete marginal distribution indicates what responses showed a net increase and from what response categories the increase was derived, i e., what responses showed a net decrease in frequency as a result of the film.

“Internal” Changes

The above-mentioned “more complete” degree of description is still limited to a *marginal* distribution—it shows the end product or net effects of a variety of possible shifts in response that could have brought about the end product. For some purposes this would be sufficient, but for a detailed analysis of the factors determining the effects of a film it would generally not be. A more complete analysis requires a description of the “internal” changes that brought about the net shifts in the marginal distribution. This can be done only by determining the response before and the response after the film presentation for each individual in the sample and comparing the distribution of *changes* of response with that of a control group that

was subjected to the same determination of responses "before" and "after" but was not exposed to the experimental variable

In this case the effects may be analyzed in terms of the differences between the cross-tabulation of responses before and after in the experimental group as contrasted with the same cross-tabulation in the control group. The distribution of changes of response in the control indicates changes occurring because of unreliability of response and other causes external to the film, and the difference between this distribution and the distribution of changes occurring in the film group indicates changes produced by the film. This procedure for determining effects shows the changes in the marginal distributions, which are the algebraic sums of the appropriate individual changes but it also shows all of the individual changes that contribute to the end result of net changes on the marginals.

An illustration of this method of measuring effects is shown below from a study of the effectiveness of different kinds of radio programs in achieving orientation objectives. The purpose of the programs was to counteract overoptimism about the ease of defeating Japan, and the item used in the illustration below measured the effect of one kind of transcription at reducing overoptimism concerning the damage done by U S air raids. The study is described in more detail in Chapters 5 and 8, the programs used for the illustration below are the dramatic programs, which had the greatest effect on the question used in the illustration. The responses to the three answer categories given a week prior to the use of the programs are shown cross-tabulated against the responses to the same question after the program, for both experimental and control groups.

The wording of the question was:

What is your idea of how much damage our air raids in Japan are doing to the Jap war effort? (Check one)

- *Already* have done a great deal of damage
- Not doing much damage so far but will do a great deal *soon*
- Not doing much damage so far and *will not* do a great deal for quite a while yet

The breakdown of before and after responses is shown below with these responses paraphrased as "already," "soon," and "will not," respectively.

The cells comprising the descending diagonal in the cross-tabulation of the control group give the proportions who did not change their responses, they reflect the stability of responses during the time interval between before and after measurements. The sum of the three cells in this diagonal is the total percentage who did not change, and the remaining six cells give the "turnover" that reflects the instability of the responses to the question. The differences between control and experimental cells, shown in the last three-by-three table, show the effects of the transcription, that is, the

changes of response in the experimental group with the values to be expected from chance and other causes subtracted out. From this table the net effects of the transcription on any particular response category can be determined from the appropriate marginal total, as well as the net effects on the marginal distribution of the three responses. At the same time, however, the net changes can be broken down into the various individual effects whose algebraic sum determines the net marginal change.

PER CENT CHECKING EACH RESPONSE COMBINATION
BEFORE AND AFTER PROGRAM

| ANSWERS BEFORE | | | | | | | | | | | | | |
|-----------------------|--------------|---|-------------|------|--------------|--|-------------|------|--------------|------------------------------------|-------------|-----|--|
| | | <i>Control—did not hear program</i> | | | | <i>Experimental— heard program</i> | | | | <i>Effects— exp minus cont</i> | | | |
| AN- SWERS AFTER | Al- ready | Will Soon | Will not | | Al- ready | Will Soon | Will not | | Al- ready | Will Soon | Will not | | |
| AL- READY | 40 | 9 | - | 49 | 19 | 1 | - | 20 | -21 | -8 | - | -29 | |
| SOON | 4 | 38 | 5 | 47 | 28 | 35 | 1 | 64 | +24 | -3 | -4 | +17 | |
| WILL NOT | 1 | 1 | 2 | 4 | 2 | 10 | 4 | 16 | +1 | +9 | +2 | +12 | |
| | 45 | 48 | 7 | 100% | 49 | 46 | 5 | 100% | +4 | -2 | -2 | 0% | |

The findings in the above example show, first of all, an increase in the total proportion changing their response as a result of the radio programs. This is seen by summing the descending diagonal in the "effects" table. Thus 22 per cent fewer in the experimental sample gave the same response before and after. If individual cell changes of 5 per cent or more are assumed to be statistically significant, four significant specific effects can be stated:

- 1 A decrease of 21 per cent in the number adhering to the most optimistic opinion of "already have done a great deal of damage."
- 2 An increase of 24 per cent in the number shifting from the most optimistic to the more moderate "soon" response.
- 3 A decrease of 8 per cent in the number going from the "soon" interpretation to the most optimistic "already" response.
- 4 An increase of 9 per cent in the number changing from the "soon" response to the most pessimistic idea that damage could not be expected for quite a while.

Finally, by summing the horizontal rows in the "effects" table we see that there was an overall decrease of 29 per cent in the most optimistic response and increases of 17 per cent and 12 per cent in the moderate and pessimistic responses, respectively

Significance Test for Distribution of "Internal" Changes

The question may be raised as to the method of calculating the statistical significance of an "effect" of the film as determined in this manner. The meaning of an "effect" in this case is a *difference between the distributions* of before-after changes in the experimental group as contrasted with the control group. If the two cross-tabulations (experimental cross-tabulation versus control cross-tabulation) differ as a whole, an "effect" is demonstrated. An appropriate test is a Chi-square test of the significance of the differences between the two distributions, taken as a whole. If a significant difference is found for the distribution as a whole, the appropriate Chi-square or percentage tests of significance may be applied to the differences obtained in the sub-portions of the distribution, which differences serve to describe the nature of the "effect" obtained.

With this Chi-square test any differences at all between the two distributions contribute to the value for the total χ^2 , even including such effects as an increase in the number *keeping the same opinion* as they had before. A short-cut procedure that is sometimes useful for locating items significantly affected by the film is simply to sum the changes of response and compare the per cent who change their response in the experimental group with that in the control group. Thus in the preceding example it can be seen that 42 per cent of the experimental group and only 20 per cent of the control group changed their responses. Thus the cross-tabulation can be used to dichotomize the samples into "changed" and "did not change," and the significance of a difference between the experimental and control percentages changing is a simple test of whether the experimental variable caused significant amounts of opinion change. This test may prove particularly useful if a question has a large number of categories so that many of the cells have expected frequencies too small properly to use χ^2 (e.g., expected values less than 5) with the size of samples used. Also with a large number of categories the amount of computation in using χ^2 is much greater, so the simpler test of percentage who change is a useful short-cut if it detects the effect.

In general, however, the Chi-square test is more sensitive in determining an effect than is the per-cent-who-change test described above. This is mainly because one possible type of effect is to *prevent changes* of response, which effects add to χ^2 but subtract from the per cent who change. When samples are small but the number of response categories is large, it is usually possible to make combinations of answer categories that are meaningful and at the same time sufficiently increase the expected frequencies that the χ^2 test may be used,

In applying the Chi-square test, the simpler procedure is to combine the frequencies in the experimental and control cells and use the combined distribution as the basis for obtaining the predicted frequencies, the predicted value being obtained by multiplying the experimental or control N by the ratio of the combined cell-frequency to the combined N . In this case the number of degrees of freedom of Chi-square is one less than the number of cells in the cross-tabulation.

However, this procedure is strictly applicable only with random sampling of subjects. If there are significant differences in the marginal proportions of the cross-tabulation because the experimental and control groups are not a random selection of individuals, a significant Chi-square may be obtained simply because the marginals differ significantly before the application of the experimental variable. In such a case the expected values should be computed from the ratio of combined cell frequencies to combined marginal N 's in the "before" data rather than the ratio to total N . The ratios should correspondingly be applied to the separate "before" marginal N 's, and the number of degrees of freedom is reduced accordingly to $r(r - 1)$ where r is the number of "before" marginal totals (i.e., the number of response categories).

As stated earlier, if the Chi-square test reveals a significant overall deviation in the control and experimental distributions, the distributions may then be examined for the nature of these effects. In general in this type of analysis it would be required that a reliable effect be obtained for the total Chi-square before it would be permissible to examine the reliability of separate subgroups of response combinations before and after. This would be particularly important where the response categories are numerous. For example, if a question has four response categories, the total number of cells in the before-after cross-tabulation would be 16. This multiplies considerably the number of comparisons that would meet the significance test even though chance were the only factor operating, and therefore it increases the probability of finding a false "effect" of the experimental variable on the question. The probability of "detecting" a false "effect" is greatly reduced if it is first shown that a significant difference exists in the total array of comparisons.

"Internal" Effects That Cancel in the Marginal Frequency

When a change (e.g., an effect of film) is described in terms of the marginal shift in the distribution of responses, the change so described is the *net change* as a consequence of the various shifts from category to category that might have occurred. As already pointed out, the "internal" changes more completely describe the net effect on the marginal by showing the individual effects that sum algebraically to produce the net effect. In some cases, however, the net effects may be zero because of opposite "internal" effects that cancel each other in their effects on the marginal distribution. Examples of such cancelling effects were very rare in the

present film studies, but they are a theoretically possible type of effect that can be measured only in terms of the internal changes

*Marginal Versus "Internal" Effects When Responses
Form a Scale of Content*

In the illustration used in the preceding section comparing marginal changes with internal changes, it will be observed that the differences in the three responses provided are a mixture of qualitative and quantitative differences. The three ideas expressed are qualitatively different, but at the same time they are along a time continuum as to *when* a great deal of damage would result from air raids on Japan. This is often the case in opinion questions; while in some instances the different responses may represent discrete categories, they frequently represent a *content continuum* along which responses can be graded in degree to which a response differs from one or the other end of the continuum.

A good example of the latter type of question is provided in the same study from which the preceding illustration was borrowed. In this study the main question used to determine the overall effect of the radio program on optimism about the war with Japan was a question asking the men how long they thought the war with Japan would last. The question was of the "open-ended" or "free-answer" type, that is, the men were asked to write in their own best guess as to how much longer they thought the war would last. The answers were coded in six-month intervals—less than six months; six months or more, but less than one year; one year or more, but less than one-and-one-half years, and so forth. Thus the responses can be graded from short to long along the content continuum of estimated length of war, and an individual's change in response, from before to after, can be quantified in terms of the number of steps by which he changed along the content continuum.

In such a case the cross-tabulation of before and after responses, from which "internal" changes can be determined, does not consist merely of *discrete qualitative combinations* of before and after responses. Instead, each individual's change may be completely described in terms of initial level, direction of change (positive or negative), and size of change (number of steps along the single content continuum). This permits several different ways of summarizing the effects obtained, in addition to those already discussed. Thus in the preceding discussion "effects" were describable as net change in the marginal of a particular response, net changes in the marginal distribution of all of the responses, and individual qualitative changes from one category to another. In an item with scaled content, the effect may be described, in addition, in terms of the net per cent who changed by given amounts in a given direction, or in terms of a mean change in number of steps along the content continuum, each of these being expressible as a function of initial level on the continuum.

These measures are illustrated below in the above-mentioned example of the length-of-war question from the study of the radio programs. The results for the control group and one of the four experimental groups are shown below, the length-of-war estimates in the after questionnaire being cross-tabulated against those in the before questionnaire. The numbers in each of the cells below are the numbers of men giving each combination of before and after response.

ESTIMATES OF LENGTH OF WAR BEFORE AND AFTER THE TRANSCRIPTION

CONTROL GROUP

| | | Estimates before, in half-year intervals | | | | | | | Total after |
|--|----|--|----|----|----|----|----|----|----------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7+ | |
| Estimates after, in half-year intervals | 1 | 6 | 5 | | | | | | 11 |
| | 2 | 4 | 37 | 5 | 1 | 2 | | | 49 |
| | 3 | 1 | 12 | 37 | 7 | 2 | | | 59 |
| | 4 | | 1 | 7 | 11 | 3 | | | 22 |
| | 5 | | | 1 | 4 | 17 | 6 | 3 | 31 |
| | 6 | | | | 1 | | 5 | | 6 |
| | 7+ | | | | | | 2 | 1 | 3 |
| Total before | | 11 | 55 | 50 | 24 | 24 | 13 | 4 | 181 |

EXPERIMENTAL GROUP*

| | | <i>Estimates before, in half-year intervals</i> | | | | | | | Total after |
|--|----|---|----|----|----|----|----|----|----------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7+ | |
| <i>Estimates after, in half-year intervals</i> | 1 | 1 | | | | | | | 1 |
| | 2 | 8 | 27 | | | | | | 35 |
| | 3 | 1 | 20 | 23 | 2 | 2 | 1 | | 49 |
| | 4 | | 11 | 26 | 10 | 4 | 1 | 1 | 53 |
| | 5 | | 1 | 7 | 6 | 23 | 4 | | 41 |
| | 6 | | 1 | | 3 | 5 | 4 | | 13 |
| | 7+ | | | 2 | 1 | 2 | 2 | 6 | 13 |
| Total before | | 10 | 60 | 58 | 22 | 36 | 12 | 7 | 205 |

* The experimental group used is the one hearing the program giving "both sides" of an issue, as described in Chapter 8.

The marginal change may be measured in terms of a "cutting-point" which dichotomizes the responses and expresses the effect as the increase in percentage falling above or below the cutting-point. For example, "overoptimism" may be defined as estimates of a war of less than one year and the responses dichotomized according to whether they are less than one year or one year or more. The results are.

| | CONTROL | | | EXPERIMENTAL | | |
|------------------------------|-------------|-------------|--------------|--------------|-------------|--------------|
| | <i>Bef.</i> | <i>Aft.</i> | <i>Diff.</i> | <i>Bef.</i> | <i>Aft.</i> | <i>Diff.</i> |
| Estimated less than one year | 37% | 33% | -4% | 34% | 18% | -16% |

Thus, while only a slight change took place in the control marginal from before to after, a decrease in "overoptimists" of 16 per cent was found in the experimental group. This presumably approximates the results that would have been obtained on a dichotomous question asking the men whether they thought the war would be over in less than a year.

The above measure reduces the effect to a single response category. This may be expanded to show the effect along the entire marginal distribution, as follows:

PER CENT CHECKING EACH RESPONSE

| <i>Response</i> | CONTROL | | | EXPERIMENTAL | | |
|------------------------------------|-------------|-------------|--------------|--------------|-------------|--------------|
| | <i>Bef.</i> | <i>Aft.</i> | <i>Diff.</i> | <i>Bef.</i> | <i>Aft.</i> | <i>Diff.</i> |
| (1) Under $\frac{1}{2}$ year | 6 | 6 | 0 | 5 | 1 | -4 |
| (2) $\frac{1}{2}$ to 1 year | 31 | 27 | -4 | 29 | 17 | -12 |
| (3) 1 to 1 and $\frac{1}{2}$ years | 28 | 33 | 5 | 28 | 24 | -4 |
| (4) 1 and $\frac{1}{2}$ to 2 years | 13 | 12 | -1 | 11 | 26 | 15 |
| (5) 2 to 2 and $\frac{1}{2}$ years | 13 | 17 | 4 | 18 | 20 | 2 |
| (6) 2 and $\frac{1}{2}$ to 3 years | 7 | 3 | -4 | 6 | 6 | 0 |
| (7+) 3 years or more | 2 | 2 | 0 | 3 | 6 | 3 |
| | 100% | 100% | | 100% | 100% | |

This shows the changes all along the marginal distribution for the control and experimental group. It can be seen that while only small and inconsistent changes occurred in the control group, the changes in the experimental group were in some cases large and were systematically in the direction of a shift of the distribution to larger estimates, the greatest change in an individual response category being the increase in category (4), a war of one-and-one-half to two years.

It will also be observed from this distribution that the effects in terms of the "cutting-point" as illustrated previously are different according to the cutting-point chosen. A change of -16% was obtained in the experimental group for estimates of less than one year, as shown above, but it can be seen also that the change is -20% for a war of less than one-and-one-half years, and only -5% if the cutting-point is two years.

The effects on the marginal distribution may also be expressed as mean effect for the distribution as a whole. This is illustrated below. The response categories are not repeated, but the numbers in the "response" column correspond to the length of the estimate in half-year intervals¹.

| <i>Response</i> | CONTROL | | EXPERIMENTAL | |
|---------------------------|------------|------------|--------------|------------|
| | <i>Bef</i> | <i>Aft</i> | <i>Bef</i> | <i>Aft</i> |
| (1) | 11 | 11 | 10 | 1 |
| (2) | 55 | 49 | 60 | 35 |
| (3) | 50 | 59 | 58 | 49 |
| (4) | 24 | 22 | 22 | 53 |
| (5) | 24 | 31 | 36 | 41 |
| (6) | 13 | 6 | 12 | 13 |
| (7+) | 4 | 3 | 7 | 13 |
| Mean (in half-year units) | 3.28 | 3.24 | 3.38 | 3.92 |
| Diff. | -0.04 | | 0.54 | |

Expressed in this way, the results show practically no change in the control group, but in the experimental group the mean estimate increased 0.54 half-year units, that is, a mean increase of about one-quarter of a year.

However, the above expression of the effect in terms of the mean change along the content continuum, and also the other ways of expressing the marginal effects, do not indicate the internal shifts that account for the marginal changes. The effects can be more completely described by a distribution of individual shifts from "before" to "after." The individual shifts in the original data presented on page 299 may be described in terms of magnitude and direction of the shifts along the content continuum. Thus an individual may shift his estimate by zero, one, two, etc., steps, and the direction of his shift may be positive (larger estimates) or negative (smaller estimates). These individual shifts are shown below.

The mean shift shown below is of course the same as that obtained from the marginal distributions. However, the mean and the marginal distributions indicate only the net effect of the individual shifts. They do not distinguish, for example, between large changes among a smaller number of individuals and smaller changes among a larger number of individuals. The distributions below, on the other hand, show magnitude and direction of individual shifts and permit making the distinction between the *number of individuals* affected, the *size* of the individual effects, and the *direction* of the individual effects. The distribution of "control" changes provides

¹ An exception to this is 7+, which for convenience includes all of the few cases in which the estimate exceeded three years. These are treated as though all were from three to three-and-one-half years.

DISTRIBUTION OF SIZE OF CHANGE IN ESTIMATE FROM BEFORE TO
AFTER, EXPRESSED IN TERMS OF ONE-HALF YEAR INTERVALS

| SIZE OF CHANGE IN HALF-YEAR INTERVALS | CONTROL | | EXPERIMENTAL | |
|--|---------|------|--------------|------|
| | N | % | N | % |
| -3 | 2 | 1 | 2 | 1 |
| -2 | 6 | 3 | 3 | 1 |
| -1 | 26 | 15 | 10 | 5 |
| 0 | 114 | 63 | 94 | 46 |
| 1 | 29 | 16 | 67 | 33 |
| 2 | 4 | 2 | 24 | 12 |
| 3 | | | 2 | 1 |
| 4 | | | 3 | 1 |
| Mean change | -0.04 | 100% | 0.54 | 100% |

a base for the changes to be expected from question unreliability and causes other than the film. Significant differences between the control and experimental distributions of changes give the effects of the film on frequency, magnitude, and direction of changes.

Net Proportion Who Change

The above distributions provide another way of measuring the effect, namely in terms of the net proportion who change their opinion in a given direction. In the distributions just shown, some individuals are seen to have shifted to smaller estimates and some to larger estimates, while others gave the same estimates in both surveys. The *net proportion who change* to longer estimates is the proportion shifting to longer estimates minus the proportion shifting to smaller estimates, without regard to size of change. Thus in the distribution of changes in the experimental group it can be seen that 67 men increased their estimate by one half a year, 24 increased theirs by a year, 2 by one-and-one-half years, and 3 by two or more years, making a total of 96 who increased their estimates by at least one half a year. Thus 96 of the 205 men, or 47 per cent, increased their estimate. Similarly, 15 of the 205 men, or 7 per cent, decreased their estimate by at least one half a year. Thus the *net proportion who change* to longer estimates in the experimental group is 47 per cent minus 7 per cent, or 40 per cent. This way of expressing the findings is summarized below.

| NUMBER WHO CHANGE THEIR ESTIMATE BY ONE-HALF YEAR OR MORE | | | | |
|---|---------|-----|--------------|-----|
| Direction of change | Control | % | Experimental | % |
| Decrease estimate | 34 | 19 | 15 | 7 |
| No change in estimate | 114 | 63 | 94 | 46 |
| Increase estimate | 33 | 18 | 96 | 47 |
| Net change (increases minus decreases) | | -1% | | 40% |

It can be seen that in the experimental group the net per cent changing to longer estimates was 40 per cent, whereas in the control group during

the same time interval between before and after measurements, there was a net change of only -1% .

It should be clear that the magnitude of the net proportion who change is a function of the fineness of the intervals into which the content continuum is divided. If the free-answer responses in the preceding illustration had been coded in one-year intervals rather than the one-half-year intervals used, a much smaller net change would have been obtained. An examination of the data on page 302 reveals that the net proportion increasing their estimates by at least *one year* in the experimental group is only 12 per cent as compared with the 40 per cent obtained for changes of at least one half a year. Presumably a value even larger than 40 per cent could have been obtained if the intervals could have been made even smaller than half-year intervals. In this particular case, however, a limit was set by the units used by the men in answering the open-ended question—the majority of the men did not answer the question in terms of months but rather in terms of year units and half-year units.

An implication of the dependence of the magnitude of the net proportion changing on the magnitude of the content units is that a more sensitive measuring instrument is provided by a question that permits fine units of change. With a given size sample it may be found that no statistically significant change was obtained merely because the units of measurement were so coarse that few individuals change by the minimal amount measured.

It should be pointed out that the net proportion who change is to some extent independent of the mean change. The mean change is a joint function of the *number changing* and the *size of the changes*, whereas the net proportion changing depends only on the number changing (for a given minimal unit of change). The mean change and net proportion changing may even give results opposite in sign if the changes in one direction are of *larger magnitude* and the changes in the other direction are of *greater frequency*.

Significance Test for Net Proportion Who Change

The test for the significance of the net proportion who change involves estimating the variance of a difference between *mutually exclusive proportions within the same sample*. The before-after results divide each sample into three groups, with the corresponding proportions indicated below:

$$\begin{aligned} p_1 &= \text{proportion changing positively} \\ p_2 &= \text{proportion changing negatively} \\ p_3 &= \text{proportion not changing} \end{aligned}$$

$$p_1 + p_2 + p_3 = \text{Total} = 1$$

The net proportion who change in each sample is $(p_1 - p_2)$, and the population variance of $P_1 - P_2$ for the experimental and control groups,

on the null hypothesis of no difference, may be estimated from the total sample of experimental and control groups combined, as follows:

$$\text{Est. } \sigma^2_{P_1-P_2} = p_{1T} + p_{2T} - (p_{1T} - p_{2T})^2$$

where T indicates that the proportions in the estimate are based on the total sample of experimental and control.² The estimated S.E. of a difference between the net proportions changing in the experimental and control groups is then

$$\text{Est. } \sigma_{diff-diff} = \sqrt{\text{Est } \sigma^2_{P_1-P_2} \left(\frac{1}{N_e} + \frac{1}{N_c} \right)}$$

The application to the present illustrative data is shown below.

| | CONTROL DIST | | EXPERIMENTAL DIST | | TOTAL (POP DIST) | |
|-----------------------------|-----------------|-------|----------------------|-------|---------------------|-------|
| | N | p_e | N | p_e | N | p_T |
| Neg. change | 34 | .19 | 15 | .07 | 49 | .13 |
| No change | 114 | .63 | 94 | .46 | 208 | .54 |
| Pos change | 33 | .18 | 96 | .47 | 129 | .33 |
| Total | 181 | 1.00 | 205 | 1.00 | 386 | 1.00 |
| Net proportion of change | | -.01 | | +.40 | | +.20 |

The estimated variance of the differences between positive changes and negative changes in the population distribution is:

$$\text{Est } \sigma^2 = .33 + .13 - (.33 - .13)^2 = .42$$

The S.E. of the mean difference between the differences between positive and negative changes in the experimental and control samples is therefore:

$$\begin{aligned} \text{Est } \sigma_{M_{diff-diff}} &= \sqrt{\sigma^2_{diff-diff} \left(\frac{1}{N_e} + \frac{1}{N_c} \right)} \\ &= \sqrt{(.42) \left(\frac{1}{181} + \frac{1}{205} \right)} = \sqrt{.00437} \\ &= .066 \end{aligned}$$

$$\begin{aligned} \text{Difference (exp minus control)} &= .40 - (-.01) \\ &= .41 \end{aligned}$$

$$\text{C.R.} = \frac{M_{diff}}{\sigma_{M_{diff-diff}}} = \frac{.41}{.066} = 6.2$$

² An equivalent formula for computing the sampling variance of the difference between two percentages within a sample is given by S. S. Wilks, "Confidence Limits and Critical Differences Between Percentages," *Public Opinion Quarterly*, 1940, 4, 322-338.

Thus the critical ratio is 6.2, leaving no doubt that the radio program had a real effect.

Change as a Function of Initial Response

One further refinement may be introduced in order to describe completely the changes produced by the experimental variable. This is the additional information provided by the *initial response* from which the individual changes were made. With this additional information the net effect on the marginal distribution can be completely understood in terms of individual shifts.

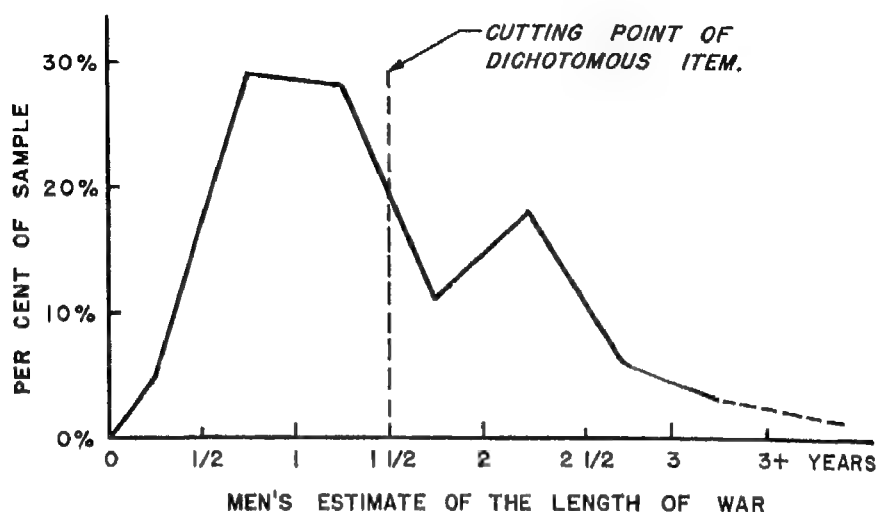
An illustration of this additional aspect of the individual changes produced by the experimental variable will not be presented here. This aspect is taken up, however, in the presentation of the findings of the study in Chapter 8, where it can be seen that the initial response was an important factor in the results obtained. With two different ways of presenting the material—giving the arguments for only one point of view versus mentioning the arguments on the other side as well—it was found that the results differed according to the initial stand of the individuals in the audience. This difference did not show up either in the marginal distributions or in the distribution of individual changes when results were computed without taking into account the initial response.

It is partly a matter of definition whether the initial response is regarded as a base for the description of change from initial to final response or whether it is regarded as a population variable which may be one of the determiners of the effects of the experimental variable. In the present research it was generally regarded as a population variable, and a general discussion of effects as a function of initial response is included in Chapter 8. The initial response is introduced as an aspect of the individual change in the present context because of its importance in the interpretation of a *marginal change* when the area represented by the item used is an area with a scaled content continuum. This is discussed in the following section.

The Meaning of a Marginal Change

The frequency distribution of the population on an opinion for which individuals vary primarily in degree rather than in kind may be conceived as a continuous distribution from one end of a *content continuum* to the other. A dichotomous question in this area subdivides the distribution into those falling above and those falling below the "cutting-point" of the dichotomous item. This is easy to visualize in the preceding example of probable length of the war. The population could be distributed along a time continuum as far as their best guess was concerned, and a question such as, "Do you think the war will last at least a year-and-a-half from now?" will merely dichotomize the population at a certain point along the

content continuum, as diagrammed below from the before distribution of the experimental sample as shown on page 299. It can also be visualized,



in terms of the results shown previously, that the marginal shift across this cutting-point represents the effects of the experimental variable in only a limited portion of the total sample even though this cutting-point (one-and-one-half years) gave the largest marginal change. It can be seen from the original data that the net number who *crossed this line* on the content continuum in an upward direction was only 43, whereas the net number who *moved upward* on the continuum was 81. This is seen by an examination of the data for the marginal distribution on page 301 and for the change of response on page 302. The total above the cutting-point (codes 4 through 7) before the radio program was 77, and this number increased to 120 after the program, an increase of 43, whereas 96 men increased their estimates and 15 decreased their estimates by at least one-half year giving a net number of increases of 81.

In general, the shift in marginal per cent will reflect the changes only in those members of the population who are *close to the cutting-point*. This would be seen even more clearly if the question had been, "Do you believe the war will last at least two more years?" With a question that dichotomized the content continuum at two years the net number crossing this cutting-point in an upward direction would be only 12 out of the net total of 81 who revised their opinions upward.

It is clear in this example that where an area is scaled in content, the marginal per cent of shift with a dichotomous question is a function of (1) the shape of the initial distribution, (2) the location of the cutting-point on the initial distribution, and (3) the distribution of magnitude of

changes of individuals at different points along the initial distribution, that is, originating from different initial responses. In the preceding example the shift is maximized at the one-and-one-half year point because, before the program was given, a large portion of the population was concentrated just below that point, and because the great majority of the shifts that did occur were limited to a change of only one-half year. In general, where the individual changes are small in magnitude the cutting-point giving the maximal marginal change will be slightly above (for positive changes) the mode of the initial distribution. Where individual changes tend to be larger, the cutting-point of maximal marginal change will be moved upward (again for positive changes) since the higher the cutting-point the greater the proportion of individuals who can cross it.

Use of a Scale of Items

The preceding discussion of ways of dealing with areas that scale in content has been limited to the situation in which the scale consists of the various response categories to a single question, as in the illustration of the length-of-war question. However, a scale of content may also be formed by asking a series of questions, all in the same content area, and assigning a scale position to each individual according to his combination of responses to the series. A technique for this procedure that was frequently utilized in the Research Branch is described in Volume IV of the present series.

In concluding this topic it should be pointed out that many of the differences in the manner of measuring effects that have been outlined are a function of whether measurements have been made both before and after the experimental variable or whether they are made after only. If the study is carried out merely by measuring a film and control group after the film, the manner in which effects can be expressed is limited. A discussion of the before-after and the after-only experimental designs, together with associated differences in tests of statistical significance, is taken up in Appendix C.

APPENDIX C

COMPARISON OF THE BEFORE-AFTER AND THE AFTER-ONLY DESIGN OF EXPERIMENTS

IN SOME of the experiments reported in this volume, measurements were obtained both before and after the introduction of the experimental variable. In others measurements were obtained only after the experimental stimulus. A comparison of the uses of the before-after and the after-only design of an experiment on opinion change resolves into three major kinds of considerations: statistical and sampling factors, types of analysis that can be made with the data, and effects of the measuring process on the measurements obtained. The *statistical and sampling* considerations arise primarily from the fact that the before-after procedure permits taking correlation between before and after responses into account in the comparison of differences between control and experimental groups. Also, it permits taking initial lack of equating between control and experimental groups into account when these have not been a random selection from the same population. Considerations of *types of analyses* that can be performed arise from the fact that the before-after procedure permits analysis of individual changes and the comparison of effects among subgroups with differing initial attitudes. The remaining consideration above, the *effects of the measuring process* on the measurements obtained, is necessitated by the possibility that making before measurements in the before-after procedure will bias the results obtained in the after measurement. In designing an experiment to measure film effects, all of these considerations are relevant to the decision as to which design to use.

Effects of the Measuring Process on the Measurement Obtained

In all experimental work there is the possibility that the measuring method will interact with the experimental variable in such a way as to make the results obtained nonrepresentative of the effects of the variable outside of the experiment. This possibility should be distinguished from the possible bias in questions and from nonrepresentativeness of measurements that are present both in experimental and in nonexperimental study. The latter possibility applies equally to control and experimental groups

and is a general problem of scientific measurement rather than a specifically experimental problem. The specifically experimental problem referred to is that the measuring process may conceal or distort the effects of the experimental variable.

1. PROBLEMS COMMON TO BOTH TYPES OF DESIGN

The "guinea-pig" reaction In the use of the after-only procedure in the studies of orientation films, the chief potential source of distortion that attempts were made to avoid was the possibility that the measuring process would reveal to the men that they were being experimented upon, with the consequence that they might start discounting the film as propaganda or would give self-conscious rather than "true" responses to the questions. To avoid this possibility, considerable effort was expended in the conduct of the studies to prevent the men from knowing that an experiment was in progress, to prevent any unusual circumstances in connection with the film showings, and to give a plausible rationale for the questionnaire which would conceal its actual purpose.

The "test" reaction A second kind of distortion that had to be avoided was the possibility that the men would react to the questionnaire as a "test" of what they knew or what was desired in them, so that in answering opinion questions they would give the "correct" response rather than their most representative response. In fact-quiz items this consideration does not apply, but if the entire questionnaire were treated as a test the men might check opinions that agreed with the slant presented in the films although these might not be what they personally believed. To avoid this possibility considerable stress was given, in the administration of the questionnaires, to the importance of honest opinions and the anonymity of the answers. Further, the rationale of the questionnaire as explained to the men was such as to emphasize the importance of the men's expressing their own true opinion. Also the fact-quiz items were placed at the end of the questionnaires to prevent giving the men a "test" approach in their answers to the opinion questions.

Suggesting the experimental variable Another possible source of distortion that had to be avoided in the questionnaires was the possibility that the questions would remind the men of the film or its contents, so that their answers were representative only of their responses while thinking of the film and would not be representative of their feelings the rest of the time. Thus, as indicated in the analysis of consistency of responses (pages 172-174), the response chosen on a particular occasion has a considerable degree of instability which may very well be a function of momentary considerations on the part of the respondent in making his choice. He may therefore have one answer that he would give if he happened to be thinking of the film but a different answer for the majority of the occasions when he is not thinking of the film. For this reason it was desirable to

avoid questions that specifically suggested the film regardless of whether there was any risk of the men's feeling that they were being "guinea-pigged" and giving a "test" set in answering the questions.

2. PROBLEMS SPECIFIC TO THE BEFORE-AFTER DESIGN

All of the above three possible sources of interaction between the experimental variable and the measuring process are applicable to both the before-after and the after-only designs. However, they are especially to be avoided in the *before-after* procedure, in which they not only apply but would if anything be even more likely to distort the results. This is particularly true of the possibility that the men will become suspicious that an experiment is in progress. The administration of two successive questionnaires on much the same content, with a relevant film shown during the interval, would be expected to arouse more suspicion than a single questionnaire that came after the film.

"Sensitization" to the experimental variable. Not only would the before-after procedure be expected to increase, if anything, the difficulties of the sort just described that apply in the case of the after-only procedure, but it also brings new possible difficulties of its own. One is that the "before" questionnaire will "sensitize" the men to the topics to be covered in the film so that their immediate reaction to the film is altered. Thus, if the before questionnaire arouses interest in the topics covered, the men may pay more attention to the material presented in the film. A related possibility is that the combination of the before questionnaire and the film will suggest to the men that they are being "guinea-pigged" *at the time that they are seeing the film* so that it could be discounted as propaganda at that time as well as later when the after questionnaire is being answered.

The "consistency" reaction. Another possibility is that the before-after procedure will stimulate the men to give the same response the second time, so that all changes and effects of variables are minimized. This would be expected to depend somewhat on the rationale given for the second administration and on the time intervening between the two. Rationales suggesting that the after questionnaire was just a "repeat" of the previous questionnaire and the use of a short time interval would both be expected to increase the tendency toward a "consistency reaction." The consistency could be due either to a conscious motive to be consistent or simply due to the absence of a concrete opinion prior to the before questionnaire, which, however, became "crystallized" or established as the respondent's "own opinion" by his being forced to give an answer the first time. Such a tendency toward consistency would be present in both the control and the experimental groups, but its effect would be to minimize the actual degree of change that would otherwise be due to the experimental variable.

A similar factor but one which would lead to diametrically opposed

effects would be a tendency to avoid repetition of answers expressed on a previous questionnaire. This possibility is much less likely than attempts at consistency, although such a phenomenon has been observed by Dodd¹ who found Syrian respondents felt that it was important to make their replies "interesting" by varying them from one interview to the next.

In addition to the precautions mentioned earlier with the after-only design, a precaution used in the case of the before-after design was the provision of a convincing rationale for the second questionnaire. In most cases this was handled by making the second questionnaire as different as possible and presenting it as a revised version. The format and paper were different, it was marked "Revised," and additions, omissions and "revisions" were provided by camouflage questions and other questions asked only in one of the two questionnaires. In the administration of the questionnaire, the class leader announced incidentally that some of the men might have taken a similar questionnaire previously but that this was a revised form with different questions. This rationale was designed to cope simultaneously with tendencies to suspect a test on the film and tendencies to try to give consistent answers.

3 COMPARISON OF THE EFFECTS OF MEASUREMENT IN THE TWO DESIGNS

No opportunity was afforded in the studies of orientation films to carry out methodological studies designed to determine the relative effects of the measuring process on the results obtained in the after-only and before-after design. The "applied" nature of the studies forced a policy of using all feasible precautions without determining the extent of the need for the precautions. Thus, the potential distortions listed are merely theoretical possibilities.

A little evidence on the problem was obtained incidentally. The evidence comes from the study of "The Battle of Britain," which was carried out at one camp with the after-only design and at another camp with the before-after design. The samples were comparable to the extent that the men at each camp were new inductees in the first few weeks of basic training. They were not comparable in that the two studies were carried out at different times (about two months apart), the men were receiving different kinds of training (Armored Force versus Infantry), and the populations of the two camps differed somewhat in composition on various demographic factors.

At the end of the "after" questionnaire the men at both camps were asked if they had recently been shown a War Department movie on the history of the war and if so to specify the subject from one of several alternative topics including "the bombing of Britain." They were then asked, "What did you think was the reason for showing this movie to you

¹ In connection with his study *A Controlled Experiment on Rural Hygiene in Syria* (Oxford Univ. Press, 1934).

and the other men?" This was a write-in question for the purpose of detecting the presence of the feeling that the film was given for propaganda purposes or the suspicion that the film was shown as part of an experiment to find out its effect on the men. The question was designed so as not to suggest either of these ideas to any but those men who had already thought of them. Only a tiny fraction of the men with either design said anything even suggestive of suspicion that an experiment was in progress. The total number of such responses at both camps combined was only five, so comparison of the after-only and before-after is relatively meaningless, for all practical purposes the number was negligible with either procedure. As far as this response is an adequate index, over 99 per cent of the men were unaware of the experiment in either procedure. A weakness of this question for this purpose is that it was phrased in the past tense so that some of the men may have suspected an experiment during the administration of the questionnaire but answered only in terms of what they thought at the time of the film showing. It seems safe to infer, however, that little suspicion of this sort was aroused with the precautions used.

Another result that bears on the relative effects of the two different measuring processes is the relative size of the effects obtained at the two different camps. The general trend was in the direction to be expected from the "consistency" hypothesis—that is, the results at the camp in which the before-after design was used tended to be less than at the camp using the after-only. This is shown below for all opinion items that showed a difference of 8 per cent or more between control and film at either camp.²

If the samples at the two different camps could be regarded as equivalent samples from the same population, the above results would show significantly less effect of the film when the before-after procedure is used. The difference in the effects obtained is in the direction expected from the hypothesis that in the before-after procedure the men are stimulated to be consistent in their answers to the questions the second time, either because the men remember their former answer and seek to be consistent or because, having once been forced to give an answer, their opinion tends to be crystalized and repeated.

However, in view of the differences in the samples that were associated with the differences in the procedure, the results must be regarded as only tentative. If the two samples compared had been equivalent, a more definitive answer could be given. Another approach would be to ask, at the camp where the before-after procedure was used, equivalent questions in some cases in the before and after questionnaires and in others only in the after-questionnaire. Unfortunately for this purpose almost all of the

² The criterion of 8 per cent sets a statistical significance level of about .01 or better at either camp for most of the items. Items with less difference were excluded so the results would not be diluted by comparisons of chance "effects."

| <i>Topic of Question</i> | SIZE OF EFFECT (FILM MINUS CONTROL) | | <i>Diff</i> |
|--|--|---------------------------------|-------------|
| | <i>Camp 1</i> (After-only) | <i>Camp 2</i> (Before-after) | |
| The RAF gave the Nazis their first real defeat | 23% | 24% | 1% |
| The Nazis failed to conquer England because of determined resistance of British | 24 | 19 | -5 |
| RAF had done about best job of fighting in the war | 22 | 11 | -11 |
| By refusing to surrender British saved U S cities from bombings | 19 | 12 | -7 |
| America would produce more war material if U S workers worked as hard as British | 15 | 7 | -8 |
| Heavy bombings of England by Luftwaffe part of an invasion attempt | 14 | 14 | 0 |
| U S was country that Hitler would have attacked after conquest of England | 14 | 1 | -13 |
| America had done little fighting compared with the British | 10 | 4 | -6 |
| Nazis probably did not treat conquered countries as bad as radio and press said | 9 | 2 | -7 |
| Britain deserves most credit for holding off Nazis while we prepared | 8 | 6 | -2 |
| British doing all they can to help in war effort | 8 | 6 | -2 |
| Average | 13 8% | 8 8% | -5 0% |

questions that were used only in the after questionnaire at this camp were fact-quiz items. On the fact-quiz items that were asked after-only at both camps no difference was found between the two camps. the mean for significantly affected items at the camp where the design was after-only was 26 8% and the mean at the camp using the before-after design but at which these particular questions were only in the after-questionnaire was 26 4%. These results in conjunction with those presented above might be interpreted as indicating that the two samples were alike as far as acceptance of the factual material is concerned but that they differed in their acceptance of the interpretations of the facts. This explanation receives a certain amount of support from the data, in that two opinion items which were asked only in the after questionnaire at the before-after camp conform to the result for other opinion items at that camp, that is, they showed less effect than at the camp at which the after-only design was used.

No definitive conclusion can be drawn from the evidence available at this time. The data suggest that the before-after procedure does minimize the actual effects, but alternative interpretations of the results are not ruled out.

Comparison of the Types of Analysis Possible with the Before-After and the After-Only Procedures

As stated earlier, the before-after procedure has the advantage of permitting analysis of individual changes and determining effects as a function

of subgroups of differing initial attitude. One of the major drawbacks of the after-only procedure is the limitation it sets on the detail with which opinion changes can be described. As shown in the earlier discussion of measurement of effects, complete description of effects depends on measuring "internal" changes. With the after-only procedure the description is limited to marginal changes—that is, net shifts in group proportions. The recording of each individual's initial and subsequent response, provided by the before-after design, has a number of related advantages in analysis of the results.

In the after-only procedure the sample may be broken down into subtypes on any variable that cannot be affected by the experimental variable and differential effects can be determined. For example, it is unlikely that a film would have any effects on the years of schooling reported by the individuals, so that differential effects of the film on different educational groups can be determined by a comparison of film and control results among the different educational groups. The same would be true for age, marital status, and similar background variables that would not be affected by the experimental variable unless it motivated the respondent to misrepresent the facts.

However, if the "sorting" variable—that is, the variable according to which the sample is sorted into subgroups—is itself affected by the experimental variable such analyses cannot properly be performed without the before-after design.

1 FILM EVALUATION AS A VARIABLE FOR ANALYSIS

One class of sorting variable is furnished by responses of the men in their direct evaluation of the film. For example, at the end of the experimental questionnaires in the orientation film studies, the men were asked how well they liked the War Department film that had been recently shown at the camp. In order to know the relative effectiveness of the film in changing opinions among men who liked the film as compared with those who did not, the before-after procedure is required because the men who like the film generally have different attitudes to begin with from those who do not like it. Thus the after-only control cannot be used as the estimate of initial response for the two differing groups, and there is no way of identifying in the control group those men who *would have* disliked the film if they had seen it. With the before-after procedure the initial opinions of the members of each group are known so each man serves as his own control. In experience, initial responses generally differed on the attitudes related to the content of the film among men who had different evaluations of the film itself, such as whether they thought it truthful, whether they thought it was for propaganda purposes, and so forth.

It should be pointed out, however, that even with the before-after design, the control is always partly incomplete for any sorting variable based

on evaluations of the film. While each man serves as his own control, there is no control on possible *differential effects due to other causes than the film* among the different evaluation subgroups. If it is found, for example, that men who thought the film was propaganda were less changed from before to after by the film than those who did not, it is nevertheless possible that this difference might reflect the differential effect of some outside cause that operates selectively on these two kinds of men. Complete control on outside causes is not possible for the reason already mentioned, namely, that we cannot identify in a control group, which does not see the film, those men who would give the designated evaluations if they saw the film. (See also Chapter 4, p. 96.)

2. INITIAL RESPONSE AS THE SORTING VARIABLE

Another class of sorting variables that require the before-after design is the initial opinion itself in the particular area in which the film has effects. For example, in the analysis of the effects of a film favorable to the British, the question arises as to who was more affected by the film, those already pro-British or those initially anti-British. With the before-after procedure this question is readily answered by sorting the men into subgroups according to initial response and determining the proportion of change on the attitude in these subgroups among film men and among control men. The difference between film and control changes in these subgroups gives the effects of the film in each subgroup. With the after-only procedure, however, there is no way of analyzing for effects as a function of initial level on the same opinion—the men answering positively after the film are a mixture of those who initially would have given the positive response and those who would have been negative but were positively affected by the film.

It might be thought that this disadvantage of the after-only procedure could be offset by sorting the men on a closely related question that was not affected by the film but that did provide a fair index of what the initial attitude had been. Such a procedure, while less precise, could be used except for the fact that well-correlated sorting questions would be the most likely also to be affected by the experimental variable, in which case the subgroups of the sort in the experimental group will not be comparable with those in the control group. In general, whenever the sorting variable is affected by the experimental variable no proper after-only analysis can be made of effects according to subtypes of the sorting variable. This is necessarily true because men who give a particular response because they were affected by the film (or in spite of the film) constitute different groups from those who give the same response but have not been exposed to the film.

Moreover, the after-only procedure cannot properly be used as a basis for fully determining whether or not the sorting variable has been affected

by the film. Since it reveals only those effects which produce changes in the marginal distribution of responses, it cannot detect situations in which a film might have opposite effects on different individuals, which fail to show up in the marginal distribution.

3 ANALYSIS TO FIND OUT "WHO CHANGES"

Another advantage provided by being able to identify each individual's change of response lies in the fact that it permits making the analysis of differential effects "in reverse." That is, one can sort into the subgroups according to *change of response* and then examine these subgroups for any related variables that differentiate those affected in one way from those affected in another way or those affected not at all. With data in machine-records form this is often a more efficient method of studying the relation of film effects to population variables.

4. CORRELATION BETWEEN CHANGES

Another type of analysis sometimes desired which cannot be performed with the after-only procedure is the analysis of changes on two different variables as a basis for correlating the changes. For example, a film may have a completely unexpected effect with no obvious relation to the material covered in the film. The presumption is that some interpretation presented or some indirect effect of the material covered accounts for the unexpected result. A source of "leads" to the reason for the unexpected effect is to find out what other changes of response are associated with the unexpected changes. Such correlations may provide important hypotheses concerning the particular part of the film's content which was important or what psychological mechanism was responsible for the unexpected result.

The use of this type of analysis raises the problem of correlation versus causation. The actual concern in most analyses of correlated changes is the discovery of possible *causal* relations, but the analysis is limited to the discovery of correlated changes, and causation cannot actually be identified. However, correlations of changes can be a valuable source of hypotheses and may sometimes serve to narrow the range of possible causal factors. The present concern is that such analyses can be performed with the before-after procedure but cannot be performed with the after-only procedure.

For example, in the after-only film study of the "Battle of Britain," a "boomerang" on men's belief in Russian integrity was found as one of the effects of the film, which did not mention Russia directly or by implication. The hypothesis was formulated that this was due to the release of suspicion of Russia that had been inhibited prior to the film because of a sense of obligation to the Russians for doing all the fighting while America was getting prepared. Thus it was postulated that the main source of the

changes in opinions about Russian integrity item would be among men who learned that the British had done a real job of holding off the Axis while we were getting better prepared. It might be expected that an after-only analysis could be made in which the men are sorted according to whether or not they said Britain deserves the most credit for holding off the Axis while we were getting prepared, and the effects on the Russian integrity item then determined separately for the two subgroups, with the expectation that the "boomerang" against Russia would disappear among the "men who did not learn" that Britain deserves the most credit—that is, the men who still named a country other than Britain even after seeing the film.

Such an analysis would be invalid, however. It must be kept in mind that men can have a lessened sense of obligation to Russia as a result of the film *without shifting sufficiently to change their response* from giving the most credit to Russia to giving the most credit to Britain. The very men with the initially *strongest* sense of obligation to Russia are the least likely to change from Russia to Britain, yet they are the most susceptible to the "boomerang" in terms of the hypothesis. Thus the after-only analysis may give just the opposite of the correct result, that is, it may indicate that the "men who did not learn" that Britain had helped hold off the Axis showed the greater "boomerang" against Russia.

With the before-after procedure, however, the hypothesis demands that if the men are sorted according to *initial* obligation to Russia the "boomerang" will be greater among those showing initial obligation, since according to the hypothesis these are the only men who can change as a result of seeing the film. This subgroup cannot be designated in the after-only procedure. Furthermore, the hypothesis demands that men who shift on the obligation item from Russia to Britain will show the "boomerang" whereas men who shift from Britain to Russia or choose Britain on both occasions will show less of this effect. The prediction for the group that chooses Russia both times is ambiguous because it is a mixture of men who did not learn that Britain did its part and men who had an initially very strong sense of obligation to Russia. As it actually turned out, an after-only analysis did give the misleading picture characterized just above, the opposite of that obtained by the before-after finding.

Statistical and Sampling Considerations

As stated earlier, the before-after procedure permits the use of correlation of before and after responses in determining the statistical significance of effects of the experimental variable, as well as the determination of any initial lack of equating between control and experimental samples when these have not been drawn at random from the population. The various statistical and sampling considerations are taken up one by one in the following portion of this section.

1 ADVANTAGE OF CORRELATION BETWEEN BEFORE AND AFTER RESPONSES

When a trend study is being made, the change in response during the time interval can be studied either by use of a "repeat" survey on the same individual or by using two equivalent samples, one for the first and another for the second survey. For a given size of sample, changes in response are generally more reliable with the repeat survey on the same sample because of the correlation of individual responses before and after the time interval. For a given level of statistical significance, smaller changes are significant because of this correlation.

In experimental studies, however, a repeat on a single sample is not sufficient. It is necessary to have a control group as well as the experimental group and the use of changes from before to after in the test of statistical significance resolves into a comparison of the *difference between the before-to-after differences* in the two groups. Since the S.E. of the difference between differences is always larger than the S.E. of the first-order differences, the correlation between before and after responses *may or may not* lead to a statistical advantage for the before-after design, depending on the degree of correlation between before and after responses. This will be made clear in the material that follows.

A convenient procedure for computing the S.E. of the difference between the correlated before and after proportion choosing a particular response in the before-after procedure is to cross-tabulate the before and after responses into a fourfold table as shown below. In the fourfold table below, "positive" is used to signify the particular response category the variance of whose marginal frequency before and after is being determined, and "negative" is used to designate all other responses given to the question.

| | | First Survey | | |
|---------------|----------|--------------|----------|---------------------|
| | | Negative | Positive | |
| Second Survey | Positive | A | B | |
| | Negative | C | D | |
| | | | | |
| | | | | $N = A + B + C + D$ |

In the fourfold table the letters *A*, *B*, *C*, and *D* represent the *numbers* in each of the four subtypes of combination of responses before and after. The proportion positive in the "before" survey is $\frac{B + D}{N}$ and the propor-

tion positive in the "after" survey is $\frac{A+B}{N}$. It is obvious, therefore, that the difference between the proportion before and the proportion after is $\frac{A-D}{N}$. The S E of this correlated mean difference estimated from the sample is equal to :

$$\text{Est } \sigma_{p_1-p_2} = \frac{1}{\sqrt{N}} \sqrt{\frac{A+D}{N} - \left(\frac{A-D}{N}\right)^2}$$

If one is merely studying trends, the null hypothesis for the significance of a change from before to after in the sample is that in the population $A = D$ so that $A - D = 0$ and the best estimate of $\sigma_{p_1-p_2}$ from the sample is that

$$\begin{aligned} \text{Est } \sigma_{p_1-p_2} &= \frac{1}{\sqrt{N}} \sqrt{\frac{A+D}{N}} \\ &= \frac{\sqrt{A+D}}{N} \end{aligned}$$

And since the obtained difference is $\frac{A-D}{N}$, the critical ratio simplifies to :

$$\text{C.R.} = \frac{A-D}{\sqrt{A+D}}$$

When the correlation between before and after responses is zero, the population values of A and D from the null hypothesis are both equal to NPQ (where P and Q are the population marginal proportions) ⁴ There-

⁴ This formula may be derived simply by the use of the scores 0 and 1, for negative and positive respectively, and applying the ordinary S E formula for the distribution of differences between correlated measures, that is:

$$\text{S E of meas diff} = \frac{1}{\sqrt{N}} \sqrt{\frac{\sum \text{diff}^2}{N} - M^2_{\text{diff}}}$$

It may also be regarded as an application of the Wilks' formula for the difference between mutually exclusive proportions in the same sample (see footnote, page 304). In the present case $\frac{A}{N}$ and $\frac{D}{N}$ are the mutually exclusive proportions whose difference, which is equal to $P_{\text{after}} - P_{\text{before}}$, is being evaluated. Applying Wilks' formula the S E of this difference is

$$\text{S E. } \frac{A}{N} - \frac{D}{N} = \frac{1}{\sqrt{N}} \sqrt{\frac{A}{N} + \frac{D}{N} - \left(\frac{A}{N} - \frac{D}{N}\right)^2}$$

⁴ If there is no correlation between responses before and after, the expected value for A/N is $(P \text{ after}) (Q \text{ before})$ and the expected value for D/N is $(P \text{ before}) (Q \text{ after})$. On the null hypothesis, that $P \text{ after} = P \text{ before} = P$, it is obvious that the expected value for either A or D is NPQ .

fore, the S. E. of the difference is equal to $\frac{\sqrt{NPQ + NPQ}}{N}$, which reduces

to $\sqrt{\frac{PQ}{N} + \frac{PQ}{N}}$, the standard form for the S. E. of a difference between independent samples. But to the extent that before and after responses are correlated, $A + D$ will be less than $2NPQ$ and the S. E. of the difference will be correspondingly smaller. In the limiting case of perfect correlation both A and D will be zero and the S. E. of the difference will be zero. Since there is nearly always some positive correlation between before and after responses, and in very reliable questions a fairly high correlation, the before-after procedure on the same sample in trend studies is more efficient in that smaller differences are reliable than in the case of two different samples.

However, in an experiment the significance of a before-after change in the experimental group is usually not the important consideration. Rather, the important consideration is the *comparison of the changes* in the experimental group and the control group. In a before-after study, events other than the experimental variable which intervene between the first and second measurement can produce changes, so that a change in the experimental group may be accompanied by a corresponding change in the control group, indicating that the change in the experimental group was due to factors other than the experimental variable. Thus the test of significance must demonstrate a reliable difference *between the changes* in the experimental group and in the control group.

It should be pointed out that it is not sufficient merely to show that a reliable change occurred in the experimental group but that a reliable change did not occur in the control group. The invalidity of such a procedure is illustrated by the absurd case in which a change of 10 per cent in the experimental group is found to be significant but a corresponding change of 9 per cent in the control group did not quite meet the criterion of significance. In such a case it would be absurd to conclude that the 10 per cent change in the experimental group was due to the experimental variable rather than a trend caused by other variables. Even when a zero change or a difference in the opposite direction is found in the control group, it is not sufficient to demonstrate, by the preceding statistical test, that the change in the experimental group was reliable. The reason for this is that a zero difference or a small but unreliable difference in the opposite direction in the control group, while it fails to prove that a change took place in the control, does not prove that no change took place in the control. The only way to prove an effect of the experimental variable is to prove either (1) that the experimental and control groups (drawn from the same population prior to the experiment) differed reliably *after* the application of the experimental variable, or (2) that the before-after *changes* differed reliably.

In the first form of proof, used in the after-only design or obtained by using only the after measurements in the before-after design, the estimated S.E. of the difference between independent samples is used, namely,

$$\sqrt{P_a Q_a \left(\frac{1}{N_c} + \frac{1}{N_e} \right)}$$

where P_a and Q_a are the marginal proportions in the combined "after" samples of control and experimental and where N_c and N_e are the numbers of cases in the control and experimental groups respectively.⁵ This test of significance determines whether the two groups, *after the application of the experimental variable*, differ reliably in their responses.

The second form of proof—determining the significance of the difference between the experimental and the control *changes* from before to after—is somewhat more complicated. Since with random sampling the two samples, film and control, are uncorrelated, the correct formula for the S.E. of the difference between the two before-after differences is

$$\sigma_{\text{diff} - \text{diff}} = \sqrt{\sigma^2_{M \text{ diff } c} + \sigma^2_{M \text{ diff } e}}$$

On the null hypothesis, the before-after response distributions in the control and experimental groups are samples from the same population, and the best estimate of the S.E. of the difference between differences should use the same S.E. of a difference for control as for experimental. The estimate is based in each case on the variance of the before-after difference in the four-fold table of *combined* control and experimental response combinations before and after. However, in the present case the null hypothesis is not that no change took place, but that whatever change took place was not different for control and experimental; that is, in the present case the null hypothesis is that $(A_c - D_c) = (A_e - D_e) = (A_t - D_t)$. Thus the estimate of the S.E. of a difference is

$$\sigma_{p_1 - p_2} = \sqrt{\frac{A_t + D_t}{N_t} - \left(\frac{A_t - D_t}{N_t} \right)^2}$$

Thus the S.E. of the mean difference between the before-after changes in the control and experimental groups is

$$\text{Est } \sigma_{M \text{ diff} - \text{diff}} = \sqrt{\left[\frac{A_t + D_t}{N_t} - \left(\frac{A_t - D_t}{N_t} \right)^2 \right] \left(\frac{1}{N_c} + \frac{1}{N_e} \right)}$$

⁵ This formula differs from the more conventional formula, $\sqrt{\frac{p_1 q_1}{N_1} + \frac{p_2 q_2}{N_2}}$, in which p_1 and q_1 are the marginal proportions in the one sample and p_2 and q_2 are the proportions in the other sample. The conventional formula systematically underestimates S.E. when N 's are small, the formula in the text above gives a test exactly equivalent to Chi-square.

While this formula appears complicated, the computation is very simple and in many cases the term $\left(\frac{A_i - D_i}{N_i}\right)^2$ is so small that it can be ignored for all practical purposes. The computation is especially simplified if the N is the same for both control and experimental groups

A consideration of this S.E. of the difference between before-after changes as contrasted with that of the difference between the after-responses, shown on page 321, reveals that the question of which of the two is the more sensitive is a function of the amount of correlation between before and after responses. If the correlation is zero, the expected values for $(A_i + D_i)$ and $(A_i - D_i)$ can be expressed in terms of N_i and the marginal proportions, P_a and P_b , where subscripts a and b indicate "after" and "before," respectively. Thus

$$\text{Expected } A_i + D_i = N_i(P_a - P_aP_b) + N_i(P_b - P_aP_b) = N_i(P_a + P_b - 2P_aP_b)$$

$$\text{Expected } A_i - D_i = N_i(P_a - P_b)$$

Substituting,

$$\begin{aligned}\frac{A_i + D_i}{N_i} - \left(\frac{A_i - D_i}{N_i}\right)^2 &= P_a + P_b - 2P_aP_b - (P_a - P_b)^2 \\ &= P_a(1 - P_a) + P_b(1 - P_b) \\ &= P_aQ_a + P_bQ_b\end{aligned}$$

Thus the variance of the difference when r is zero is larger by the factor P_aQ_a . In the usual case in which the combined before and after marginals do not differ greatly, the variance of before-after changes will be approximately twice as large as the after-only variance, and the S.E. of the mean difference is approximately $\sqrt{2}$ times as large. This would make the significance of the difference between the before-after changes a less sensitive statistical test than a straight test of the after-only difference—the *mean difference* would average the same over a large number of samples, but the *variability would be greater*, so that a larger difference would be required for a given confidence level.

On the other hand, it can be seen that this disadvantage of the test of differences between before-after changes when the correlation is low can be more than offset by higher correlations between before and after responses. This can be done by applying the formula,

$$\sigma_{diff} = \sqrt{\sigma_1^2 + \sigma_2^2 - 2r_{12}\sigma_1\sigma_2}$$

to the combined experimental and control group data, the null hypothesis being that the before-after changes in the two groups are samples from the same population of changes. In this case the estimated variance of the *difference* between experimental and control before-after changes is:

$$\sigma^2_{\text{diff in a-b}} = \left(P_a Q_a + P_b Q_b - 2r_{ab} \sqrt{P_a Q_a P_b Q_b} \right) \left(\frac{1}{N_e} + \frac{1}{N_s} \right)$$

where subscripts *a* and *b* refer to "after" and "before," respectively, and *e* and *s* refer to "control" and "experimental," respectively. This may be expressed as:

$$\sigma^2_{\text{diff in a-b}} = P_a Q_a \left(\frac{1}{N_e} + \frac{1}{N_s} \right) + \left(P_b Q_b - 2r_{ab} \sqrt{P_a Q_a P_b Q_b} \right) \left(\frac{1}{N_e} + \frac{1}{N_s} \right)$$

Since the first term on the right-hand side is the variance of the after-only difference, we may solve for the value of *r* at which the after-only and before-after procedures are equally sensitive by setting the second term equal to zero, thus:

$$\text{If} \quad \left(P_b Q_b - 2r_{ab} \sqrt{P_a Q_a P_b Q_b} \right) \left(\frac{1}{N_e} + \frac{1}{N_s} \right) = 0,$$

$$P_b Q_b = 2r_{ab} \sqrt{P_a Q_a P_b Q_b},$$

$$\text{and} \quad r_{ab} = \frac{1}{2} \sqrt{\frac{P_b Q_b}{P_a Q_a}}$$

It can be seen, therefore, that for values of *r*_{ab} greater than $\frac{1}{2} \sqrt{\frac{P_b Q_b}{P_a Q_a}}$, the before-after procedure is more sensitive than the after-only, because the covariance between before and after scores subtracted is greater than the variance added in by using a distribution of differences rather than single scores. In a typical case in which the combined experimental and control proportions do not differ too greatly before and after, *r* would have to be over approximately .50 before there would be increased sensitivity by using the before-after procedure. For highly reliable questions, the sensitivity is greatly increased, but such high reliability is likely to be rare for questions on topics subject to experimental change. In the present studies the straight after-only difference was sometimes more sensitive and the advantage of the before-after differences between the changes was generally very slight despite the fact that a sizable gain would have been present if only trend studies were being made.

2 INSURING THE EQUIVALENCE OF NONRANDOM SAMPLES

All of the discussion of statistical considerations in the before-after as compared with the after-only procedure has so far made the assumption that the control and experimental groups have been drawn as random samples from the total population being used in the experiment. If random sampling or its equivalent is not possible, other considerations may be of importance in the statistical problem of determining what size dif-

ferences between film and control are to be considered outside the possibility of sampling differences

If some selection variable distinguishes the experimental and control groups such that they represent different populations in terms of some property, two results are possible:

- (1) they may show initial differences in responses
- (2) they may react differently to experimental and other causal variables—that is, they may *change* differently when exposed to the same causal factor.

The first possibility is important mainly for the after-only procedure, in which the effect of the experimental variable is gauged from a comparison of the two samples after one sample has been exposed to the experimental variable. In this case obtained differences may be due to the initial population differences rather than to the effects of the experimental variable. This possibility is not important with the before-after procedure because the *before measurement* determines any initial population differences, which differences are subtracted out when the effects of the experimental variable are gauged from the differences between the before-to-after changes in the two samples.

The second possibility noted above—selective change in two populations exposed to the same causal factors—is relevant to the before-after design. It is of little importance if no important causal factors other than the experimental variable operate during the interim between the before and after measurements, but since this cannot be entirely ruled out there is the possibility that a *differential change due to outside causes* will be falsely judged an effect of the experimental variable. This possibility is not relevant to the after-only design because changes are not measured—with the after-only design such differences come under the heading of population differences in response at the time of measurement, the first possibility above.

The possibility of selective change is of more importance in a before-after experiment comparing two or more experimental variables with a different sample for each variable. Here different causal factors are applied to different samples, and obtained differences in effect may be selective changes due to population differences if the samples differ in some population property. When the comparison is only between experimental and control samples, selective changes are important only because of causal factors other than the experimental variable. In attitude experiments, however, these are a real possibility.

Relevant and irrelevant selection properties. If the experimental and control groups are not strictly comparable because of some difference in the properties of the populations from which they are drawn, it becomes important to distinguish between properties which are relevant and those

which are irrelevant to the experiment. As an extreme example in Army experiments, the control may be selected from the population of men with even-numbered and the experimental group from the population of men with odd-numbered digits in the last position of their serial number. This is a population property that is completely irrelevant to the experiment because it is uncorrelated both with initial response and susceptibility to changes in response when exposed to causal factors. If, however, the control group consists of Air Force personnel and the experimental group is from the Infantry, the population difference may be relevant—that is, it may be accompanied by correlated differences in either initial response or changes in response. This is always a question that cannot be settled on a priori grounds but rather must be settled empirically. In many experiments what are conceded *generally* to be important population variables are nevertheless irrelevant for the experiment—the control and film might differ completely with respect to sex, or age, or religion, etc., with no accompanying effect on the results obtained.

In Chapter 6 some experience is cited concerning the relevance of a number of population variables in the present film studies done in the Army. Except for the variables of education and intellectual ability, few sizable correlations of initial response and population variables were obtained, and again except for these variables, almost no reliable differential changes were obtained for the attitudes and films studied.

Relevance of a selection property is not an absolute matter but is a matter of degree. The extent to which it is important in an experiment is a function of:

1. the extent to which the initial response or the change in response depends on the selection property,
2. the extent to which the two samples differ with respect to the selection property

By way of illustration, suppose that a particular response is given by 33 per cent of the men with I Q.'s below 100 but by 66 per cent of those with I Q.'s above 100. Under these conditions the largest degree of initial inequality in response would occur if one sample contained only high I Q. men and the other only those with low I Q. Then there would be a difference of 33 per cent. If, however, in one sample there were 50 per cent high I Q. men and in another 60 per cent the difference in percentage giving the response should amount to only 3.3 per cent (10 per cent of the initial thirty-three per cent difference). Similarly, if one sample has 40 per cent and the other 60 per cent high I Q. men, the difference in per cent giving the response would be expected to be 6.6 per cent, and so forth.

In general, it can be seen that under the condition of a dichotomous selection property (e.g., "high I Q. men" versus "low I Q. men"), the ex-

pected difference between the proportion giving the response in the two samples is the *product* of the difference in proportion on the selection property and the difference in proportion on the response for the two selection properties. It will also be observed that the product of these two fractions is quite small except for very large values for the two fractions. When the correlation between the initial response and the selection property is relatively small and the inequality of the selection property in the populations from which the samples are drawn is small, only a tiny difference between the sample means is expected. The same analysis also applies in the case of selective *changes* as contrasted with the above case of selective initial differences. But in the case of selective changes even less correlation between change in response and population properties was found (see Chapter 6)

Use of equating when selection is not random. For some kinds of selection properties, the inability to use a random procedure in selecting samples can be compensated by selecting *equated* samples. In the field of public opinion *surveys* representative samples are generally achieved by *stratifying* the sample to predetermined population composition constants. In experimental studies the experimental and control groups can be *equated*—that is, stratified to the same population-composition values, as a means of achieving equality of the samples on population properties.

The situation in which this equating procedure is most appropriate is when the control and experimental groups necessarily differ in some *irrelevant* population property which is nevertheless correlated with relevant properties. In the film research studies carried out in the Army this situation often appeared to be the case. Since training is carried out *by units* in the Army (e.g., company units or platoon units) the test of a film—to achieve proper realism—was necessarily by units. But if an experiment is limited to a sample, say, of 200 film and 200 control and has to be carried out at the company level, one company would have to serve as control sample and the other as film sample. Further, if the subjects are new recruits, membership in a particular company will have had little time to operate as a causal factor, but local assignment practices may be such that there is a nonrandom difference in, say, the educational background of the two companies. Thus the irrelevant variable of company membership is nevertheless correlated with education—one company having been given a greater share of the better educated. In this case we can administer the experiment to the entire group and afterward select two equated samples for analysis—one from each company—and overcome the difference in composition on the important population property of education.

This procedure was generally followed in the Army film studies reported in the present volume, partly because it was felt that for new recruits company membership was for the most part an unimportant population prop-

erty, relevant only because of correlated differences on relevant properties. However, it was never established that company membership was not an important variable in its own right, even for men with only two or three weeks' membership

*Use of Unit Variance with Random Units Rather than
Random Individuals*

As indicated earlier, a frequent reason for nonrandom sampling is that the experiment must be administered to units rather than individuals. This may be required for purposes of realism—where the variable is used outside of the experiment with units rather than individuals. Or, it may be required for practical reasons, as when a limited number of camps or cities can be visited—a random sample of 100 members of the U S population would require traveling to just about 100 different locations. In such a case the population units may often be randomized and the statistical tests made in terms of the obtained variance among means of units rather than responses of individuals. This is a very efficient procedure if a sizable number of units is possible. If unit differences are really irrelevant selection properties, this fact will show up in the smallness of the variance of their means. If selection properties are relevant and units in the control sample can be paired with similar units in the experimental sample on the basis of important population properties, the distribution of pairs of mean differences will accordingly provide an even more sensitive significance test.

It should once more be pointed out that equating of samples is more likely to be of value—even if its exact value cannot be determined—when the experimental design is after-only. Correlations of population variables with initial responses may be found fairly often, but correlations with changes would be expected to be less frequent. More often the correlation with initial response would be expected to remain much the same in the final response—but with a shift in the overall level. But in either case the population differences must be large and the correlations large before much advantage from equaling is expected.

Summary of Comparison of Two Procedures

A general conclusion from the various considerations discussed is that neither the before-after nor the after-only procedure has all the advantages or disadvantages, and the one that is most useful for a given study depends on the purpose and the methodology that can be worked out. The most important advantage of the before-after procedure is the more complex analyses and more complete description of effects that it provides. Probably its main disadvantage is the greater opportunity for the measuring process to bias the results obtained, but this may well be completely avoidable with the proper methodology. While the before-after procedure is

generally more sensitive in measuring trends or changes occurring during a time interval, greater sensitivity is not guaranteed in a controlled experiment, in which the outcome depends on a comparison of second-order differences between control and experimental groups. In the latter case the relative sensitivity depends on the reliability of the questions—with low reliability the after-only procedure is the more sensitive. The before-after procedure, however, has a definite advantage when the control and experimental samples cannot be drawn at random from the same population and therefore differ on some population variable that may be correlated with the measurements. In such a case spurious “effects” may be obtained with the after-only procedure which may merely reflect population differences, whereas the before-after procedure takes initial differences into account.

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APPENDIX D

"REGRESSION" IN THE ANALYSIS OF EFFECTS OF FILMS

IN SEVERAL places in the present volume reference has been made to the phenomenon of "regression." Allowance for this phenomenon was of particular relevance in the analyses reported in Chapter 8, where opinion changes were examined in relation to men's initial opinion. The purpose of the present appendix is to give a somewhat fuller treatment of various aspects of regression, particularly as they apply in experimental studies of changes in qualitative variables.

The general concept of regression has been more or less familiar since Galton's application of the term to the tendency for the children of very tall or very short persons to *regress* toward "mediocrity"—that is, to be closer to average height than were their parents. A similar phenomenon is found in the case of the extreme values encountered when one is dealing with test scores or scales of opinion, that is, individuals who obtain the extreme scores—either the very high or the very low—will, when retested, always tend to regress to less extreme positions. The reason for this lies in the fact that all tests, attitude or opinion scales, etc., are subject to a certain amount of unreliability. With any imperfectly reliable measure, the group getting the highest scores contains not only those who really belong in the highest category, but also some who were erroneously classified as belonging in this category because of chance errors of measurement. Since the chance errors will not necessarily occur in the same direction in a retest, the scores of this high group will tend to average lower in the retest. This does not imply a "law of averages" that invariably follows good luck with bad—it is merely an implication of the fact that the individual's average performance is always the most likely result.

The tendency of extreme scores to regress toward the average is of great importance when one is analyzing the effects of an experimental variable on those with varying initial positions, because of the artifact that is introduced if the phenomenon is not controlled.¹ A good example of this artifact has been pointed out by McNemar in his criticism of studies of the effect of environment on IQ.² In these studies children with low initial

¹ Thorndike, R. L. "Regression Fallacies in the Matched Groups Experiment," *Psychometrika*, 1942, 7, 85-102.

² McNemar, Q. "A Critical Examination of the University of Iowa Studies of Environmental Influences upon the IQ," *Psychol. Bull.*, 1940, 2, 63-92.

IQ scores were given special training and then retested. An average improvement in retest score was found, but it was subsequently pointed out by McNemar that improvement would be expected in this initially low-scoring group simply because of regression due to the presence of a certain amount of unreliability in IQ measurement.

As with test scores, it is the element of chance in opinion measurement that accounts for the regression of opinions toward the "average" opinion in a retest. Opinion questions are never completely reliable—chance factors of the moment account for errors of measurement when a question is asked the first time, and similar chance factors account for shifts of response when the same question (or a related question) is asked at a later time. If one focuses attention on the group which gave the most extreme answer in the first questioning, one can expect that a certain proportion will "regress," in a second questioning, to a response that is less extreme in the population as a whole. This phenomenon of regression toward the mean in comparing "test" and "retest" results for opinion is well illustrated in the cross-tabulation of estimates of length of the war, used as an illustration for other purposes in Appendix B. The results for the control group, which was subjected to no experimental variable during the interim between the first measurement and the retest, are reproduced below. As in the previous illustration, the numerical code stands for the estimated length of war in half-year units. For convenience of presentation, all estimates of over three and one-half years have been combined into one class interval which is coded below as "7+."

Despite the fact the *N*'s involved are very small, an almost perfectly consistent progression of regression is found from the lowest initial score to the highest initial score. At the extremes, men with the lowest initial score (1.0) regressed to 1.5 in the retest, and men with the highest initial scores (7+) regressed to 5.5 in the retest. But, furthermore, without exception all groups regressed in the retest to a value closer to the mean of 3.2; and in general the relative amount of regression is proportional to the degree of initial deviation from the mean of the group.

This result—that those with moderately high and moderately low scores regressed as well as those with extreme scores—illustrates the fact that although regression is most conspicuous at the extremes it is also present in some degree for all scores that deviate initially from the mean. Except for the extent to which test and retest measures correlate, the most probable value in the retest for any individual is the mean value of the group as a whole. Since the correlation is not perfect, all individuals initially deviating from average tend, as a group, to come a little closer to average in the retest.

It is obvious that an artifact would be involved if we concluded from the results presented that those initially low in their estimate of the length of war increased their true estimate and those initially high decreased their

true estimate Rather, the results are interpretable in terms of the unreliability of anyone's estimate at a given point in time. Without any real change of opinion a person makes a different guess depending on chance factors of the moment, and the greater the degree of chance involved, the greater the regression

Estimated Length of the Remaining War with Japan in Half-Year Intervals

| | | Initial Estimate (before) | | | | | | |
|-------------------|----|---------------------------|------|------|------|------|------|------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7+ |
| Retest (after) | 1 | 6 | 5 | | | | | |
| | 2 | 4 | 37 | 5 | 1 | 2 | | |
| | 3 | 1 | 12 | 37 | 7 | 2 | | |
| | 4 | | 1 | 7 | 11 | 3 | | |
| | 5 | | | 1 | 4 | 17 | 6 | 3 |
| | 6 | | | | 1 | | 5 | |
| | 7+ | | | | | | 2 | 1 |
| Mean est | | 15 | 22 | 31 | 39 | 45 | 57 | 55 |
| Regression | | +0.5 | +0.2 | +0.1 | -0.1 | -0.5 | -0.3 | -1.5 |

In the illustration that has been given, the responses are scaled with numerical scores and the usual conception of regression toward the *mean* of the scores applies directly. That is, the responses have an average in the usual sense, and averages on the retest can be computed for each of the subgroups of original response. This conception is not quite as apparent when responses are completely qualitative rather than being measured in

scalar units. But even in the case of qualitative designations the same expectation of regression is equally applicable. Suppose, for example, that the above results are dichotomized, using as "cutting-point" the smallest estimate recorded, namely, less than one-half year, which was scored as "1" in the preceding breakdown. The cross-sort of responses then becomes:

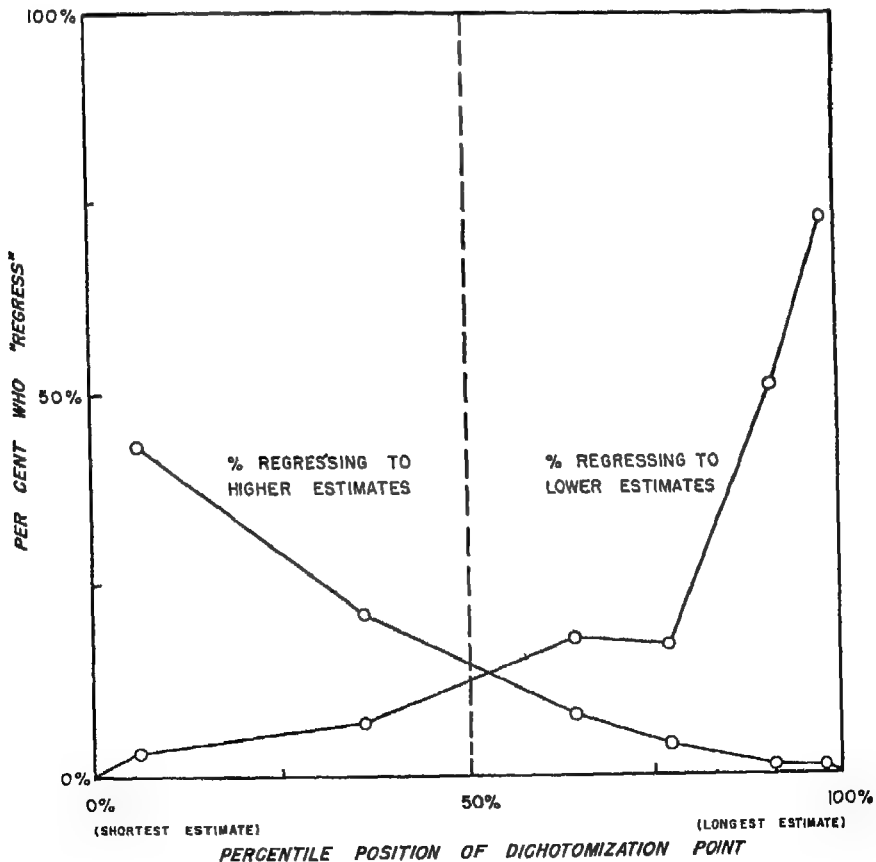
| | | <i>Initial Estimate (before)</i> | | |
|---------------------------|----------------------------|----------------------------------|-----------------------------|-----|
| | | Less than one-half year | One-half year or more | |
| <i>Retest (after)</i> | One-half year or more | 5 | 165 | |
| | Less than one-half year | 6 | 5 | |
| | <i>Total</i> | 11 | 170 | 181 |
| | % Regression | 45% | -3% | |

With this breakdown the regression may be measured as *per cent who regress*, and it can be seen that of the 11 men with estimates of less than one-half year, five, or 45 per cent, regressed to larger estimates in the re-test, whereas only 3 per cent of the 170 with initially longer estimates shifted to less than one-half year.

If "cutting-points" for dichotomization are made successively at higher estimates along the length-of-war continuum, it would be expected that successively fewer of the men with smaller estimates would regress to higher estimates and successively more of the men with higher estimates would regress to smaller estimates. This merely describes, in terms of percentages above or below a certain value along the continuum, the same relation previously shown for mean values of the different subgroups of initial response. The percentages actually obtained at the different "cutting-points" are shown below.

| | PER CENT WHO REGRESS | |
|----------------------------|------------------------|-----------------------|
| "Cutting-point" between | To higher estimates | To lower estimates |
| 1 and 2 | 45% | 3% |
| 2 " 3 | 21 | 7 |
| 3 " 4 | 8 | 18 |
| 4 " 5 | 4 | 17 |
| 5 " 6 | 1 | 53 |
| 6 " 7+ | 1 | 75 |

It can be seen that the proportion who switch to the category of longer estimates progressively decreases as the dichotomy is made at longer and longer estimates, whereas the proportion who switch to the category of smaller estimates increases. In general, the proportions switching to the opposite category would tend to be equal at the "cutting-point" which dichotomizes the total sample into two equal-sized groups, i.e., with a 50-50 split. Such a dichotomy is not actually possible with the categories used in the above illustration, but the theoretical point can be obtained by plotting the above percentages who regressed as a function of the proportion of the total group included on a given side of the cut-point, i.e., as a function of the percentile point corresponding to each of the different answers. The first category above—less than one-half year—includes 11/181 of the sample, or 6 per cent, the second category includes 66/181, or 36 per cent, and so forth. The results plotted in this way are shown in the figure below. It will be noted that the two curves cross the 50-percentile line at about the same level, indicating that with a 50-50 split the propor-



tions regressing in the negative and positive direction are approximately equal.

The figure shows the per cent who regress to the opposite response of a dichotomy, as a function of the "cutting-point" chosen for the dichotomy. The responses shown in the figure were initially obtained in scale units of length of time and for purposes of illustration have been dichotomized at the various possible "cutting-points" But the same sort of relation between per cent regressing and the "cutting-point" of the dichotomy is expected in the more usual case with qualitative responses, in which the "cutting-point" is determined by the wording of the question.

Suppose, for example, the question had been, "Do you think the war will be over in less than one-half year?" One would then expect a fairly high proportion of those saying "yes" to this question to regress to "no" in a repeat survey, but very few of the "no" responses to regress to "yes" because most of the initial estimates fell above this point. But if the question had been, "Do you expect the war will be over in less than two years?" one would expect a smaller proportion to regress from "yes" to "no" then regressed from "no" to "yes."

The situation for qualitative responses can perhaps be clarified by a closer analysis of the factors of which regression is expected to be a function. Below is a schematic representation of the correlation between test and retest with a dichotomous qualitative question.

| | | First Survey | | |
|---------------|-------------------|-------------------|-------------------|--|
| | | Negative Response | Positive Response | |
| Repeat Survey | Positive Response | A | B | |
| | Negative Response | C | D | |

$$p_1 = \frac{A + B}{N}$$

$$p_2 = \frac{B + D}{N} \quad N = A + B + C + D$$

In the diagram, the letters A, B, C, and D indicate the number of cases in each indicated combination of responses to the question in the two surveys, A being the number who change their response from negative to positive, D being the number who change from positive to negative. If we are considering only the error of measurement in the question and assume that true responses remain unchanged, it is obvious that the expected values for p_1 and p_2 , the proportions giving the positive response in the first and second surveys, respectively, will be the same, i.e.,

$$p_1 = p_2 = \frac{B + D}{N} = \frac{A + B}{N}, \text{ and therefore } A = D$$

Therefore, it can be seen that if only errors of measurement are being considered the number who regress to each of the two opposite responses in a retest will be the same (i.e., A will equal D), and therefore the *proportion* of those giving a particular initial response who shift to the opposite response is a function of the initial division of opinion and the relative size of A or D . The proportion of those initially negative who shift to positive

is

$$\frac{A}{A + C}$$

and the proportion of those initially positive who shift to negative is

$$\frac{D}{D + B}$$

Since $A = D$, the relative size of the *proportions* "regressing" for each initial category depends on the relative sizes of $(A + C)$ and $(D + B)$. Now if the coefficient of reliability, r , is measured in terms of point-correlation,³ then:

$$\frac{A}{A + C} = p(1 - r)$$

and

$$\frac{B}{B + D} = q(1 - r)$$

Thus it can be seen that the per cent regressing from negative to positive or from positive to negative can be expressed as a function of p , the proportion choosing the positive response, and r , the reliability of the question as expressed in terms of point correlation.

The regression of qualitative responses to the other response in the dichotomy is completely analogous to the regression of quantitative scores toward the mean. By using 0 and 1 scores for absence and presence, re-

³ Point correlation is often called the "phi-coefficient" it is Pearson r using 0 and 1 scores for absence and presence, respectively, of the qualitative trait.

$$\text{If } p_1 = p_2 = p, r = \frac{B/N - p^2}{pq} = \frac{\frac{Np - A}{N} - p^2}{pq} = \frac{p - p^2 - \frac{A}{N}}{pq} = \frac{pq - \frac{A}{N}}{pq}$$

Solving for A gives $A = Npq(1 - r)$. Since $A = D$, D is also equal to $Npq(1 - r)$, and since $(A + C) = Nq$ and $(B + D) = Np$,

$$\frac{A}{A + C} = p(1 - r)$$

$$\frac{D}{B + D} = q(1 - r)$$

spectively, of the qualitative trait it can be shown that the mean of the scores is p , and that considered as groups those initially negative, all with initial scores of 0, and those initially positive, all with initial scores of 1, both regress toward the mean, which is p , the proportion of positive responses in the population.

In view of these considerations, it is not surprising that in the dichotomy of the estimated length of war at the two-year point there was a regression of 34 per cent among the men guessing a war of two years or more. The question was a fairly unreliable one, and only about one man in four selected a response of two or more years initially. The fact that only 11 per cent regress in the experimental group therefore constitutes evidence that the communication was effective in reinforcing the expectation of a long war by preventing 23 per cent of those initially expecting a long war (of 2 years or more) from regressing.

The importance of a control for such regression due to unreliability of the measuring instrument is obvious here. If one had merely measured the experimental group before and after the administration of the experimental variable, one might make the mistake of assuming the -11% net change was a negative effect of the communication, rather than the effect of regression due to unreliability, coupled with a sizable positive effect of the communication. For the experimental group *as a whole*, the phenomenon of regression does not affect the conclusion, because regression in a negative direction is offset by regression in a positive direction and any significant overall shift in one direction or the other reflects a true change rather than an artifact of regression. In the present illustrative experiment the overall net change in the control group was only -1% , which is well within chance expectation. Thus the net change of 39 per cent between the before and after measurements in the experimental group is a quite accurate representation of the overall effects of the program because in this case there was no appreciable change due to other causes, so that before and after measurements on just an experimental group would have been adequate for the overall evaluation. However, since this outcome can rarely be accurately predicted in advance, a control is generally needed simply to check on the possible overall shifts due to other causes. In any case, the point to be emphasized here is that in order to break down the results into subgroups of differing initial level, the control group is an absolute necessity in order to determine the effects of regression.

A simple example may be used to illustrate the type of false conclusion that can be drawn from data if the errors of measurement and the consequent regression are ignored. Consider the following cross-tabulation of before and after responses which were obtained in a control group in one of the orientation film studies.

Question: "Do you feel that the British are doing all they possibly can to help in the war effort?"

FIRST-SURVEY AND REPEAT-SURVEY RESPONSES (TWO WEEKS LATER)
IN A CONTROL GROUP

| | <i>First Survey</i> | | Total |
|----------------------|---------------------|------------|-------|
| | - (no) | + (yes) | |
| <i>Repeat survey</i> | | | |
| + (yes) | 40 | 308 | 348 |
| - (no) | 57 | 37 | 94 |
| Total | 97 | 345 | 442 |

It will be observed that about the same number of men originally saying "no" changed to "yes" (40) as changed from "yes" to "no" (37). But it is also observed that the number originally saying "no" is much smaller to start with (97) than the number saying "yes" (345). If we mistakenly treat all of the changes as real changes of opinion, we get the interesting conclusion that a much larger proportion of the "no" group changed their opinion than of the "yes" group. In fact, 41 per cent of the 97 men originally saying "no" changed to "yes," whereas only 12 per cent of the initial 345 "yeses" changed to "no." This finding might even be generalized in terms of an explanatory concept: it might, for example, be postulated that the majority opinion has much more effect on the minority group than vice versa. In line with this, it might be said that the group opinion exerts a force on the dissenters, causing many of them to align themselves with the group opinion whereas only a small fraction shift away from the group opinion.

This reasonable-seeming hypothesis would receive ample "verification" from other sources if the same interpretation were made of similar data. This follows from the fact that a repeat on any question whatsoever, provided there is error of measurement, will give the same picture as in the above illustration. Solely on the basis of error of measurement, the number of individuals who shift from negative to positive will be expected to be the same as the number who shift from positive to negative. This has already been seen to be a necessary consequence if p_1 and p_2 remain the same. It can perhaps be made more meaningful by realizing that whether an individual is a "true positive" or a "true negative," and whatever the frequency of errors for either designation, it will be just as likely that his two responses will be positive first and negative second in the successive surveys as that they will be negative first and positive second. And if the number of positive-negative pairs is approximately the same as the number of negative-positive pairs, the proportion changing will necessarily be larger for whichever response was initially in the minority.

Treating the changes in this way as entirely due to the errors of meas-

urement, the marginal per cent of positive responses is seen to "regress" toward the group proportion, in each of the two subgroups of initial response. Thus the group of individuals initially giving the negative response regresses from 0 per cent positive to 42 per cent positive, and the group initially giving positive responses regresses from 100 per cent positive to 88 per cent positive, both groups shifting toward the overall value of 78 per cent positive. If the question had zero reliability, both groups would regress to 78 per cent positive on the retest, which would be a shift involving 78 per cent of those initially negative and a shift of only 22 per cent of those initially positive.

This illustration is chosen as an obvious example of a spurious conclusion that can be drawn because of failure to attend to the errors of measurement in the opinion question used. A similar false conclusion could be drawn if one had used before and after measurements on a single group that was exposed to the film between the two measurements. With the present opinion item no significant effect of the film was obtained in the before-after study, so the film-group results were very similar to the control-group results just shown. But if one ignored regression due to unreliability, one might conclude that the effect of the film was to shift both groups in the opposite direction—making the anti-British more pro-British and make the pro-British more anti-British, the former being the larger "effect."

This obviously spurious example shows clearly the effects of ignoring regression—i.e., the effects of ignoring chance error of measurement—in opinion study. Probably few analysts would draw the spurious conclusions drawn here for illustrative purposes. However, in more complex attempts to analyze opinion changes, the regression factor may enter in a disguised form that leads to spurious conclusions due to failure to consider the involved effects of errors of measurement.

In experiments with the effects of films on opinions, as in most studies of opinion changes, it is often desired to study factors related to a given opinion change by means of analysis of the effects as a function of predisposing background variables, as a function of initial opinions related to the opinion that changed, and as a function of related changes in opinions. The effects are expected to be indirect results of the interaction of the material presented and numerous human variables not subject to the experimenter's control. Special analyses have sometimes been used in an attempt to get at the effects of those elusive variables as causal factors, not by manipulating them and observing the changes produced, but by measuring their extent in each individual and comparing individuals who differ with respect to these variables. In performing such analyses it is particularly important to control for errors of measurement, to prevent phenomena due to regression in selected groups from being attributed to the variables under investigation.

The members of the Experimental Section found a number of examples in which their own earlier attempts to analyze opinion change as a function of other opinions and other opinion changes turned out to be subject to artifacts due to regression. An example of the kind of artifact encountered is illustrated in Appendix C in the discussion of the advantages to analysis of the before-after procedure. In order further to illustrate the effects of neglecting errors of measurement in a complex analysis of opinion change, another illustrative example is provided below. The example and the data are fictitious, but they illustrate the problems involved. Suppose that one of the orientation films had made the point that the League of Nations failed because America refused to become a member. Suppose further that the film produced an increase of 10 per cent, from before to after, in the number holding this belief and that the control group as a whole showed a 0 per cent change in frequency of expressing this belief. The analyst might be interested in whether the film differed in effectiveness among those of differing education, and since the control showed no change might concentrate his attention on the before-after changes in the experimental group. A hypothetical outcome in the analysis might be as follows in response to the question:

"In your opinion, did the League of Nations fail because America refused to become a member?"

| LESS WELL EDUCATED | | | | BETTER EDUCATED | | | | |
|--------------------|--------------|------------|--------------|-----------------|--------------|------------|--------------|-----------|
| <i>Before</i> | | | | <i>Before</i> | | | | |
| | <i>No</i> | <i>Yes</i> | <i>Total</i> | | <i>No</i> | <i>Yes</i> | <i>Total</i> | |
| <i>After</i> | <i>Yes</i> | 20 | 20 | 40 | <i>Yes</i> | 25 | 35 | 60 |
| | <i>No</i> | 50 | 10 | 60 | <i>No</i> | 25 | 15 | 40 |
| | <i>Total</i> | 70 | 30 | $N = 100$ | <i>Total</i> | 50 | 50 | $N = 100$ |

The analyst might look at these results and note that among those initially opposed to the idea (i.e., those "no" before), 25/50 or 50 per cent changed to "yes" among the better educated, whereas only 20/70 or 29 per cent changed from "no" to "yes" among the less well educated. Similarly among those initially favoring the point of view only 15/50 or 30 per cent of the better educated went from "yes" to "no" whereas 10/30 or 33 per cent changed from "yes" to "no" among the less well educated. Thus on both counts the better educated were more affected than the less well

educated, many more of the "no" responses changed to "yes," and fewer of the "yes" responses changed to "no"

The hypothetical analyst might be a little puzzled, however, by the fact that the marginal change in each case is 10 per cent; that is, the less well educated shifted from 30 per cent "yes" to 40 per cent "yes" and the better educated shifted from 50 per cent "yes" to 60 per cent "yes." The difficulty is that the initial response is correlated with the variable being examined—that is, the less well educated have fewer facts and tend to give a "patriotic" response exonerating the United States. The less well educated initially say "yes" in only 30 per cent of the cases whereas 50 per cent of the better educated believe initially that America's refusal led to the failure of the League. We therefore expect a smaller proportion of the "yes" responses and a larger proportion of the "no" responses to *regress* among the less well educated. Until we examine the same breakdown in the control group, we do not know how many regress in the various subgroups and cannot conclude anything about differential changes among those initially opposed and those initially favoring, and the results as expressed in the preceding paragraph are meaningless. All we may conclude is that there was a 10 per cent shift in the marginal proportion saying "yes" in each group. We may further express this shift in terms of the "effectiveness index" to take account of the initial differences in the marginal proportions. Without examining the control results, even these calculations are risky because there may have been a differential change due to other causes in the two educational groups. Such a possibility is readily taken into account by examining the control results for effects of other causes. Further, with the control breakdown available, individual cells in the before-after analysis can be examined, and conclusions may be drawn as a function of the initial position of the members of the samples. What the control adds is the result to be expected, due to all other causes, and it includes as one of the important "other causes" the effects of regression due to errors of measurement.

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